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ORIGINAL ARTICLES

ACUTE HEART FAILURE*

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"The heart is the best motor known to man. It performs equally well the small amount of work necessary when a man is at complete rest, and the large amount necessitated by great exertion."

The healthy heart responds to every call at once. If the arterial resistance be suddenly increased, it is as promptly overcome by the succeeding ventricular contractions, and there is no time lost in experimentation. The demand and the accomplishment occur together. It can receive and expel much more or much less blood than usual in response to the call.

"And this adaptability is a property inherent in the heart muscle itself. A heart freed from all nervous connection possesses this property to precisely the same degree as does the intact organ."

Von Frey remarks that this ready response to a sudden call for more blood is not a reflex act, but is due to some property inherent in the muscle, because the heart may not feel the call till the beginning of systole, but the response is instant.

We may say also, that the heart is practically tireless, as, witness its behavior in paroxysmal tachycardia, when it will beat for hours or days at the rate of 200 or more with no apparent weakening. Every muscle is attuned (as it were) to a certain ratio of contraction and rest, for instance, it has been shown that the abductor indicis can lift an object of given weight once a second for two and a half hours (9,000 times). So with the heart, the period of systolic contraction is so counterbalanced by the period of diastolic rest, that the "cardiac cycle" will continue a lifetime with slight and transient variations, and without noticeable fatigue. The heart rests, not by lessening the force of its contractions, but by prolonging the period of diastole. The contractions of the healthy heart are always equal to the demand. The relaxations are the periods of rest and are equal to the necessity. This holds true in the healthy heart. Heart failure is a result of a diseased or crippled heart. A healthy, normal heart never fails.

It is true that the heart sometimes is crippled by sudden violent effort to overcome extreme peripheral resistance, or to render the blood-supply equal to the increased metabolic demands, and a condition of acute dilatation occurs which, unrelieved, leads to true heart failure. But

* Read at the Forty-Seventh Annual Meeting of the Michigan State Medical Society, Muskegon, July 10-11, 1912.

the heart is then no longer a healthy normal heart, and the failure only occurs after the integrity of the heart musculature is impaired.

If then, we accept the statement (as I think we must) that the normal healthy heart does not fail, it follows naturally that heart failure is an accompaniment or sequence of some pathological condition or process. The term "heart failure" means of course, failure on the part of the heart to perform its duty, to respond promptly and efficiently to the demands. But it does not convey any idea as to the etiology or nature of the failure. The heart may fail and stop in diastole or in systole, and it is the desire of the writer to endeavor to offer some help in distinguishing between the two conditions in order that we may apply our therapy more intelligently.

Hirschfelder describes a condition that he calls "acute primary over-strain," occurring in healthy hearts. It is caused (as the term signifies) by anything that throws a sudden violent strain on the heart, such as heavy work, lifting, running, etc., and, at times, severe mental strain. It is characterized by the sudden onset, after unusual exertion, of dizziness, palpitation, pallor, a sense of uneasiness, etc., with perhaps a sense of oppression, all aggravated by repeated exertion. The pulse is small, feeble, rapid and often irregular. The cardiac impulse may be barely felt, or not at all. The area of cardiac dulness is enlarged to the left, upward and downward, sometimes also to the right; the sounds are feeble and indistinct, especially the first sound.

Krehl,[1] however, doubts the frequency of acute dilatation in healthy hearts. He says:

> There have been cases described in which a heart, as the result of a brief but excessive amount of work, was said to have been permanently injured, or, indeed to have given out entirely. It has been considered that this resulted from an excessive dilatation of the heart. We know that such an acute dilatation, with an arrest in diastole, may be produced experimentally in animals by greatly increasing the resistance against which the heart must pump. The possibility that a similar result may occur in man from excessive exertion, cannot be denied absolutely, yet the probabilities are entirely against this view.

In the reported cases of heart failure following exertion, too little attention has been paid to the condition of the heart muscle, which has, in most instances, been previously damaged. Confirmatory of this are the results of observations made by de-la-Camp, which showed that exercise, even to the point of exhaustion and fainting, does not bring about cardiac dilatation in otherwise healthy men; also that healthy dogs could run on a treadmill until they dropped from exhaustion, without causing dilatation of the heart. On the other hand, J. Barach, on a set of marathon racers, has obtained contrary results, the orthodiagraph showing dilatation of the heart in all cases.

Hornung also states that he has studied during the past seven years, eleven hundred hearts with the *x*-ray, and has found a number which were apparently perfectly normal, but were subject to acute dilatation after over-strain. He thinks that cardiac over-strain, with acute dilatation, is more common than might be supposed.

DIAGNOSIS

The diagnosis, as to the present condition, is not generally very difficult, but it may well be difficult to say that it is primary. There may have been latent pre-existing myocarditis, fatty degeneration or arteriosclerosis. The history, therefore, is in all cases an especially important factor. When symptoms of heart failure occur suddenly in a robust individual, during or after some intense mus-

1. Clinical Pathology.

cular or nervous effort, cardiac over-strain may usually be correctly diagnosed, and if there be a history of recurring attacks, or of recent infectious disease, a condition of cardiac dilatation may be equally surely diagnosed. But if there be no history of previously existing circulatory disturbance, the individual being young and robust, the condition may be one of cardiac hypertonus. The differentiation, however, is practically of comparatively small moment, the corner-stone of the treatment of both conditions being absolute rest, with intelligent and faithful cooperation of physician and patient.

As to this condition of hypertonus following severe exertion, further observations have been made by Groedil, Mowitz, Dietlm and others. They have studied the action of the heart by means of the orthodiagraph and have shown that while acute dilatation is one of the results of overstrain, an entirely opposite condition very often occurs. The heart, after violent exertion, even in trained athletes, has been shown to become smaller rather than larger. It contracts strongly and relaxes imperfectly, yet the patient may present the clinical picture of acute dilatation from cardiac over-strain, pallor, a small rapid pulse, and even syncope, but the heart is tonically contracted rather than dilated.

Hirschfelder, in commenting on this condition of cardiac hypertonus following severe exertion, says that the mechanism is not fully understood, but that the explanation given by Henderson for similar conditions, gives a plausible solution, viz., that by the violent exertion the rapidity of breathing exceeds that necessary to aerate the blood. Under these conditions CO_2 leaves the lungs and the blood a little too rapidly, acapnia results, and this, Henderson believes, is the cause of these circulatory conditions as it is in shock. Hirschfelder seems to agree with him and offers this as the explanation of the small contracted heart and the arterial anemia induced by severe exertion.

It would seem then that we must, partially at least, revise our ideas as to the treatment of the apparent heart failure following over-strain. It is probable that in the majority of instances there is an acute dilatation with consequent feebleness of contraction. But it appears to be also true that in many instances the heart is in a condition of contraction to such an extent as to be decidedly smaller than normal. How to distinguish between the two conditions is a problem that must be left to the clinician. The symptoms of an imperfectly dilating heart may be virtually the same as in one that contracts imperfectly.

There is another form of acute heart failure that I wish to discuss because it has occurred to me that our present views as to its pathology may be incorrect, and that the efficiency of our treatment may be increased by a revision of our hitherto accepted ideas. What is the nature of the collapse that sometimes occurs at the height of acute infectious diseases?

There are certain diseases which we call the acute infectious diseases, such as typhoid and scarlet fevers, pneumonia, etc., in which it is not uncommon to observe at the height of the attack, symptoms of heart weakness which, in most cases, subside with convalescence. When, in these diseases, the symptoms of failing circulation and cardiac weakness make their appearance during the period of convalescence, or two or three weeks after the height of the disease has passed it is right to diagnose myocarditis. But when the symptoms and signs of heart failure make their appearance during the height of the infectious-process, it is not right to attribute them in any degree to "exhaus-

tion of the heart muscle." The heart muscle does not become so easily exhausted. Nor should we call it acute myocardial degeneration. When in the course of any of the acute infectious diseases, the pulse, which has been running at about the proper ratio with the temperature, begins to grow disproportionately rapid and small, and when the blood-pressure begins to fall, we are accustomed to say that the heart is failing, and we endeavor to sustain it by administering the regular approved heart tonics. But generally we fail to get the desired results and we say that the degeneration of the heart muscle was too far advanced.

I think that in these cases we have the wrong conception of the pathology. In many cases the period of time that has elapsed since the start of the infection is too short to allow the degeneration of the muscular fibers to reach that extent that will cause cardiac failure. The heart does not fail easily. It takes many days generally, for the degenerative processes to be able to cripple the heart. In the meantime the pulse, though perfectly regular, is becoming very rapid and small, till finally a condition of collapse supervenes and death ensues. Yet not from heart failure; rather from the action of the toxins on the vasomotor center and the accelerator nerves of the heart. The action of these toxins is stimulant. They stimulate the constrictor nerves of the arteries and the accelerator nerves of the heart. The arteries become smaller and the heart tends to a tetanoid condition. The venous tonus is lessened and therefore the veins do not give the heart much blood, nor does the heart relax sufficiently to receive much. Finally, so little blood is sent to the arteries that nutrition fails and death ensues.

I am aware that this is not the view generally held. In fact, Romberg and Passler have advanced the theory that the collapse that sometimes occurs at the height of infectious diseases is due to a vasomotor paralysis. It does not seem to me, however, that vasomotor paralysis explains the circulatory conditions as perfectly as do vasomotor constriction and cardiac spasm, and I am not alone in this view. Yandell Henderson,[2] of Yale, says:

"Failure of the circulation is the commonest mode of death. When the process is judged by the arterial pulse there appears to be a progressive weakening of the heart beat. Such a decline characterizes the approach of the end after many abnormal conditions. It often follows intense and prolonged pain and it may occur at the height of an infectious disease. At first the rate of the heart beat is rapid. Its amplitude diminishes while arterial pressure is nevertheless maintained at a normal level, or even above normal. After the pulse has become 'thready' arterial pressure sinks rapidly, the amplitude of the heart beats is small and becomes progressively smaller. Formerly this process was regarded as consisting essentially in failure or fatigue of the contractile force of the heart. Even today it is generally so denominated among clinicians. The later stages of this process are spoken of by surgeons as shock."

Now listen! Henderson says further, traumatic shock and toxemic shock (which name Henderson gives to the collapse that occurs at the height of infectious processes) *are in all essential features identical.*

"It is illogical to call this condition (toxemic shock) vasomotor failure, for the same evidence which shows that in shock the heart is still functionally capable, demonstrates also that the vasomotor mechanism is in a high degree of activity. The heart in shock does not fail, if by failure is meant beating more and more feebly until it sinks into prolonged diastole. On the contrary, during the tachycardia early in shock the systoles empty the ventricles more completely than normally. With the increased tonus induced in the heart by acapnia, the ventricles require more than a normal venous pressure for their diastolic distention, at

2. Am. Jour Physiol., 1910, No. 1.

the same time the force of the venous stream is diminished by the failing venopressor mechanism.

"Thus," Henderson says, "*hyper-tonus* of the heart, as held by Howell and Boise,[3] and confirmed by Jerusalem and Starling is an important contributing element in circulatory failure."

Janeway, in speaking of the work of Romberg and Passler, says:

"Their conclusions clearly demand that we shall, in most cases, abandon the idea of cardiac death at the height of acute infectious diseases, such as pneumonia, typhoid fever, diphtheria and the septic fevers. Sudden death during convalescence may be due at least in part to the later development of lesions in the heart muscle."

We may say then that the sequence of events preceding death at the height of acute infectious diseases is as follows: The heart, by reason of excessive and spasmodic systolic contraction and imperfect relaxation with weakened venous pressure, is not adequately distended and filled during the diastole, hence the picture of a failing heart revealed by the pulse. For the same reason arterial pressure ultimately sinks, in spite of an intense activity in the vasomotor nervous system (not because of failure), and in spite of an extreme constriction of the arterioles (not because of their relaxation or paralysis). Finally the blood-stream is so much diminished that it is inadequate to supply oxygen to the tissues and death quickly ensues. We may therefore properly say that the heart fails in certain cases of acute dilatation following primary over-strain, and in those cases occurring during or after the stage of convalescence, where there has resulted acute myocarditis with degeneration of the heart muscle. But we may not blame the heart when death occurs as a result of the acute collapse which occurs during the height of various infectious diseases and septic processes. In these cases death results from circulatory failure due to hypertonus of the heart and arteries.

3. Tr. Amer. Assn. Obstetricians and Gynecologists, 1893.

TREATMENT

It will not be necessary to speak very fully on the treatment of the cases of acute primary over-strain or secondary myocarditis. If we keep the pathology clearly in mind the methods of treatment will suggest themselves. The primary and most absolutely essential requirement is rest, immediate, complete and continuous. It must not be theoretical rest, but it must be thorough and continued till the symptoms and signs of dilatation have subsided, and even then the resumption of activity must be gradual and interrupted. The diet must be plain, simple and digestible. Tea and coffee may be used moderately if the patient is accustomed to them. Tobacco should be absolutely prohibited. In the acute stages, if there is much precordial distress, cold applied to the precordium is often grateful and helpful. When there is dyspnea and pulmonary edema with cyanosis, etc., a liberal venesection will often give great relief. I do not advocate the administration of medicines usually called "heart tonics," because it is not reasonable to attempt to relieve an overstrained heart by giving remedies whose action is to aggravate that strain.

Brooks,[4] in speaking of the heart failure consequent on the acute infections, says that he is convinced that drugs should not be given to control the over-action of the heart in acute infectious fevers. Still, there does exist a very well marked indication to modify this over-action, if it can be done safely, because of the tendency to acute heart failure (so-called) at the height of the infectious process. Brooks attempts to meet this indication by rest, avoidance of mental stress and occasion-

4. New York Med. Jour., Sept. 9, 1911.

ally the administration of codein or morphin. But he passes very quickly over the discussion of treatment of the acute dilatation (as he names it), which often results as a consequence of this over-action of the heart, because he says, "We all treat it about the same and with equally bad results."

If we adopt the term toxemic shock to designate those cases of apparent heart failure which so often occur at the height of the infectious diseases and septic processes, and if we accept Henderson's statement that traumatic and toxemic shock are identical in their pathology, and if we adopt as the basis of that pathology the fact that the circulatory conditions in shock are due to tonic contraction of the heart — exaggerated systole and deficient diastole with possibly weakened venopressor mechanism — we have a rational basis of treatment, viz., to relieve the spasmodic systolic contractions and increase the diastolic relaxation, so that a larger quantity of blood will be received by the heart from the distended veins and distributed to the tissues of the body. And this indication is as imperative in toxemic shock as in traumatic. Crile recognized the conditions and tried to meet the indication by a rubber suit, which, when placed inflated caused pressure over the surface of the body and forced the blood from the veins into the heart and arteries. Henderson has suggested that the free administration of carbon dioxid would relax the heart and equalize the circulation.

I have accomplished the same thing (in traumatic shock) by the intravenous administration of very large doses of veratrine. The blood-pressure was brought to normal. The amplitude of the heart beats was increased, and normal circulatory conditions were restored.

In those cases of apparent heart failure following violent exertion, in which the heart is contracted and small, this treatment is not as imperative as in toxemic shock, because the causative over-strain is generally comparatively transient, while in shock the evil influence of the toxins is continuous. In these cases of over-strain absolute and continued rest may and probably will allow the heart the resume its normal function. But if a fatal issue seems imminent, cardiac relaxants must be employed. Cardiac tonics are absolutely contra-indicated.

But these various therapeutic measures simply palliate, they do not cure, although they may postpone a fatal issue by restoring the crippled circulatory apparatus.

In the meantime the indications are support, eliminate and aid by sera, by vaccines and in every possible way the natural physiological resistance.

THE PHYSICIAN AS AN ADVISER

By virtue of his greater acquaintance with worldly affairs and the position he holds of viewing a young man's qualities in the abstract, the physician is not overstepping his position in directing the youth to a proper calling. When physical conditions should not permit violent or the usual school-boy exercises, he should be warned of the ill effects of such and a proper line of pleasurable sports be laid out.—E. T. Bush, *New York State Jour. of Medicine.*

MISTAKES

There are bad mistakes, slight mistakes, mistakes of omission and those of commission, mistakes due to incomplete, inaccurate, or erroneous observation, and mistakes due to hasty or illogical conclusion. There is a tendency to attach too much importance to some of the instrumental and other elaborate methods of diagnosis and to underestimate an all-around clinical experience and knowledge.—Leonard, *Journal Missouri State Med. Assn.*

UTERINE PROLAPSE*

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Detroit

This condition is generally caused by injury, although in very rare cases it is found in virgins, and then due to a general condition of ptosis, and once in a while to a hypertrophy of the cervix.

As a rule it occurs after child-birth from injury to the pelvic floor or a tear in the uterus. It may also be caused by subinvolution. Prolapse caused by fibroid tumors, is so very rare that it is hardly worth mentioning.

Knowing the etiological factors, naturally a great many of these cases can be prevented by proper obstetrics. Prompt repair of injury, looking to the after treatment, proper involution, etc., will prevent occurrence of the trouble in many cases; still there are severe cases of labor, small pelvices, or a very large child, where the most able obstetrician will have that condition follow labor. In fact in many cases it is an excessive dilatation of the vagina, which never returns to its normal or nearly normal condition. There is a relaxed state of the pelvic outlet, with weakened uterine ligaments.

But there is no need to call your attention to all these little points, which you know as well as I. What I want to call your attention to is, how to relief these conditions. In the early stages, especially in young women, this can often be relieved by simple measures of keeping the patient in bed and the use of tonics, proper feeding and the use of astringent tampons, and injections, if the lacerated perineum has been immediately repaired. Later this mode of treatment can be amplified by the use of a well-fitting pessary, and the patient being allowed to be about.

In the majority of cases, however, uterine prolapse is brought about gradually by repeated child-births, each adding a little to the relaxed condition, and, especially if they are in rapid succession, each reducing the woman's general vitality a little more, until the weakened conditions of all the supporting parts is brought about, and the womb finally protrudes, becomes raw, and pulling down with it perhaps the bladder and rectum.

These are the kind of cases that generally come to me, and then only surgical means will be of avail. The question is what to do in each case, they vary so much. In some of the milder cases in young women a plastic operation of the vagina and perineum will be sufficient. In other cases an Alexander or Gilliam operation with restoration of the perineum will relieve the case, and not interfere with future pregnancies.

The temptation to do a ventral fixation is very great and was formally frequently performed, but with the danger during future labors, it has been entirely abandoned in the child-bearing age. The most difficult cases we come across are those of women who have passed the menopause, where the trouble comes on at the age of 50 or 60, caused by hard work in many cases of poor women, or as the result of severe coughs, or repeated attacks of coughing (whatever the cause may be).

* Read at the Forty-Seventh Annual Meeting of the Michigan State Medical Society, Muskegon, July 10-11, 1912.

In these cases the uterus comes entirely out of the vagina, pulling with it the bladder, causing trouble in that viscus, also pulling down the rectum, stretching the vagina, and the perineum to a great extent. Some of these cases have abdominal troubles, such as involution of the appendix, gall-stones, or perhaps adhesions, in such it is best to make an exploratory abdominal operation, find out the exact condition in the abdomen, do whatever is necessary, and then take the uterus, pulling it high up and making a firm ventral fixation. This will pull up the uterus and bladder, and if you add to this a little narrowing of the vagina, perineorrhaphy, your patient is permanently cured.

In some cases, however, there is no excuse for this kind of operation, we must do everything from below, and the most elaborated and complicated operations have been devised, such as anterior, colporraphy, removing part of the uterus, lifting up the bladder, and stitching the uterus below, after removing more or less of the uterus, if it is large and heavy. Then narrowing the vagina and restoring the perineum. I have tried these various methods, and I have generally found them to fail. I have narrowed the vagina, starting up near the cervix, to the outlet, including the perineum to such an extent, that I could hardly get a lead pencil in, and I found that in the course of six months, the case was just as bad as before. The pounding of the uterus as the result of coughing and lifting heavy weights, or both, soon stretched the parts, and the whole thing can come down again. One can readily see that when the whole support is from below, the uterine ligaments have been stretched too much, and are three times the ordinary length, when the uterus is outside of the vagina. Shoving the uterus up in place, lifting up the bladder, etc., simply causes the various uterine ligaments, to fold upon themselves two or three times, and absolutely do nothing to support the uterus, and unless we open the abdomen either from above or below and shorten the ligaments by folding them some way or shortening them by overlapping we can get no support of the pelvic ligaments.

Hence, all those operations are very difficult and complicated and dangerous, and I have discarded them all.

In women passed the menopause with uterine prolapse, we must either do ventral fixation, which can be done in a few minutes with virtually no danger, or we must do a vagina hysterectomy, and remove the offending organ entirely. When we remove the uterus we can take the broad ligaments, and stretch them together, so as to form a good floor for the pelvis, and the sacro-uterine ligaments are also brought together, as well as the round ones, all these form a good pelvic floor. The fold of the perineum between the uterus, and bladder which generally is quite loose and movable, is pulled over the ligaments from in front towards the back and pulled down in the culdesac and stitched there.

We now have the ligaments shortened, and this bridge across the pelvic floor, the bladder is lifted up and attached to this with the peritoneum. A little drainage tube can be inserted if necessary, and a few stitches in the vagina placed, although generally it falls together and needs none. A tampon is introduced to lift everything up good and high, and the perineum is then restored *secundum artem*. Our patients will not have any relapse, if we have aseptic union.

FRONTAL LOBE ABSCESS*

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Detroit

Frontal lobe abscess is, to judge from reported cases in medical literature, one of the least frequently recognized focal pus collections in the intracranial cavity.

It is true, perhaps, that this infrequency may be more apparent than real, because in the first place the locality is not one to easily produce focal or localizing symptoms, being, indeed, the so-called "silent" area, and in the second place those septic diseases exterior to the intracranial cavity which are most prone to produce intracranial septic complications of various types, such as extra and subdural abscess, meningitis, septic thromboses and superficial, deep, single or multiple brain abscesses in this region, have not until quite recently gained general recognition in the minds of medical men as potent etiologic factors.

Thus for many years now septic tympano-mastoiditis, both acute and chronic, have been well intrenched in the medical mind as frequent and potent etiologic factors in producing the various septic pathologic intracranial manifestations, as heretofore mentioned.

On the other hand, however, the same type of sepsis in the accessory sinuses of the nose, especially in the frontal and sphenoidal sinus and the ethmoidal cells, has not gained any such wide recognition as an effective cause of the intracranial disease.

So, one may suspect, for these reasons, frontal lobe abscess may be more frequent than the reported cases might lead one to suppose. Halstead and Vaughan,[1] in a paper read before this society, state that up to 1901, only twenty-one cases of frontal lobe abscesses had been reported in medical literature, and since that time perhaps twice that number had been reported.

The etiology of frontal lobe abscess may be said, in general terms, to be the same as any other abscess formation in any part of the body, viz., the lodgment of some form of pus-producing germs in the tissues of the part, resulting in the usual way in tissue destruction and pus formation.

It is conceivable that any distant pus focus or infection resulting in a bacteriemia might be followed by a focal pus collection in the frontal lobe, the pathogenic microorganisms reaching the area through the medium of the blood-stream.

Injury, either direct or by contra-coup, may be the cause of the abscess. There must, however, be in addition to the injury some other factors at work which offer ingress to the pathologic organisms. This may be through a general infection of the blood-stream, as in bacteriemia, or through some local breach of tissue, offering easy access to the microorganisms through the lymphatic stream, or by direct breach of tissue continuity. The causes at work still further back in the production of the bacteriemia are legion and cannot all be enumerated here. Some of them are the acute infectious diseases,

* Read at the Forty-Seventh Annual Meeting of the Michigan State Medical Society, Muskegon, July 10-11, 1912.

1. THE JOURNAL of the Michigan State Medical Society, February, 1912, p. 73, et seq.

infection from the lungs and the various pyemic diseases.

Local causes, which perhaps are the most important, naturally include the various septic infections and necrotic processes found in the anterior region of the skull, and among those must first be mentioned the various septic manifestations in the nasal accessory sinuses, such as frontal sinus abscess, septic ethmoiditis and septic infiltration of the sphenoidal sinus. It is well known these sinusites are frequently accompanied by necroses, which may involve the inner table of the skull, resulting in the destruction and the exposure of the underlying brain structures to infections.

The one outstanding and significant fact thus far adduced in the etiology of frontal lobe abscess is that its most frequent cause is septic infection of the accessory sinus of the nose, and that fact once clearly established lends to those diseases an added importance which they sadly need and which will bring to their management much more attention.

The bacteriology of frontal lobe abscess does not present anything of great interest because no one type of infection seems to have a predilection for this area, almost all pyogenic organisms having been demonstrated in the collection of pus.

The signs and symptoms of frontal lobe abscess are obscured by and in fact gradually merge out of the symptoms and signs of the causative disease. Thus, in general septic infections with a bacteriemia gradually, from the signs and symptoms of whatever disease is producing the bacteriemia, will be evolved the signs and symptoms of a gross intracranial lesion. To the symptoms of shock from injury will at some subsequent period be added first the signs, symptoms and blood-picture of septic infection, and later still the signs and symptoms of a gross intracranial lesion.

To the signs and symptoms of a frontal, ethmoidal or sphenoidal sinusitis will be added very insidiously the symptoms of a gross intracranial lesion. The symptoms of a gross intracranial lesion will be those of intracranial pressure and added to them special symptoms, as areas producing localizing signs are invaded. Headache is sometimes found to be more marked in the frontal region; vertigo, pupillary changes; double optic neuritis, frequently more marked on the affected side; extraocular paralysis, producing strabismus and diplopia; various paralyses of face and extremities, motor and sensory; aphasia, if the left lobe be involved. Epilepsy, usually of the Jacksonian type, and certain changes in mentality, the so-called intracranial jocosity being occasionally observed, and sometimes the patient becomes ugly and shows signs of degeneracy.

In the major part those symptoms have no localizing value. The diagnosis must rest on the pathologic course of the intracranial lesion; the unequal optic neuritis, aphasia, extraocular motor paralysis. Certain motor paralyses are helpful when present. The mental changes in the patient are also significant, as is tenderness and swelling over the frontal region.

The skiagraph has been also of use in making differential diagnoses, especially in the detection of bony erosions.

REPORT OF CASE

E. P., aged 17, male. Consulted me first on April 10, 1910. The history of the present illness extended over two weeks, during which time he had suffered severely from pain in his left frontal region which had confined him to bed and prevented sleep. Upon examination his pulse was 85, temperature 100.4 F., evidently suffering great pain over frontal sinus; and also there was present a very considerable tenderness and some puffiness in left frontal

region. The patient had been well previous to two weeks covered by the present illness. The patient was placed in Harper Hospital for observation, as follows:

First, temperature and pulse curve: Steady temperature, highest point 99.4 F.; lowest, 97.6 F. Pulse more variable, from 60 to 80. Urinary analysis, normal. Wassermann, negative, Polymorphonuclear leukocytosis 78 per cent. to 81 per cent. Normal red cells. Skiagraph showed decided cloudiness of left frontal sinus.

While he was undergoing these tests in the hospital his mental condition began to change, his speech became slow, he had evidence of a left facial paralysis, his right thumb and finger flexors became paralyzed and his flexor of hand on the forearm became subsequently involved.

He was then taken to the operating room and the left frontal sinus thoroughly opened. It was full of pus and granulation tissue. The posterior sinus wall was absent and the dura covered with granulations and bathed in pus. The dura was freely exposed, all necrotic bone tissue was carefully removed and the anterior lobe was explored in several directions but no pus located.

The patient was put back to bed and next day was markedly improved, temperature and pulse normal, and what seemed very interesting and hopeful was that all symptoms of intracranial pressure completely disappeared in the inverse order in which they had come—first, the flexor of hand on forearm was restored, and then the finger flexors became normal and the facial paralysis disappeared and the power of speech was completely regained.

The frontal wound healed by granulation and the patient in the course of six weeks or two months was completely well, apparently.

However, in November, 1910, he returned, saying that the night before, while at a theater, he had been seized with some kind of a spasm which was accompanied by loss of consciousness, probably an epileptic attack.

The frontal sinus wound and region were found perfectly normal.

He was again sent to the hospital for observation and had several attacks of epilepsy, both external recti muscles became paralyzed; he developed a double optic neuritis, more marked on the left side, and rapidly lost his vision until he had only light perception.

The frontal wound was again opened and found to be perfectly healed. No pus could be located. At this time Dr. Angus McLean made a very large osteoplastic decompression bone flap in the left temporal region and made many deep brain punctures with a large trochar in an effort to locate the abscess, but again it was not reached.

The astonishing thing about this operative procedure was the prompt recovery of the patient from all his critical symptoms. The epilepsy entirely disappeared. The eyes became perfectly straight, and the optic neuritis subsided, leaving his vision perfectly normal. The decompression wound healed perfectly and the man went back to his work apparently perfectly well. The really important observation at this stage of the disease was the prompt subsidence of the double optic neuritis and the prompt and complete recovery of vision.

For a year this man remained well. He then returned again, complaining this time of pain and swelling in the forehead midway between the supraorbital ridge and the hair line. The swelling was well marked, tender and boggy, separated by a normal area from the old frontal wound. This swelling was freely opened and at its bottom a necrotic area was found in the frontal bone which, when removed, liberated an immense abscess leading down into the left frontal lobe. This was freely opened and drainage introduced to its bottom.

Again the patient made good progress towards recovery and finally the wound granulated and closed.

This time, however, the period of quiescence was brief, and when the abscess was again freely opened there seemed to be a cavity as large as the whole frontal lobe, and this time the procedure terminated in the death of the patient.

Post-mortem examination showed an immense pus cavity with the walls involving the whole frontal lobe and draining by a very large opening through the frontal bone.

It seems to me that the one great reason for so many brain abscesses, even when located and drained freely, failing to heal, is a mechano-physical one. The soft walls of the cavity cannot collapse and heal together because the brain is surrounded and supported on all sides by the solid uncollapsible calvarium. It cannot collapse and its attachment to the brain surface prevents the collapse of the walls of the pus cavity, the outlet closes, but leaves

some small dead spaces unhealed and infected, the inevitable result of which is recurrence.

The only possible improvement in management would be a counter-opening through a large decompression flap made at the same time as the original opening into the abscess cavity, by which means a species of through and through drainage might be established which perhaps might result in obliteration of dead spaces.

The fact that these abscesses are sometimes multiple adds another difficulty in getting permanent healing.

The pathologic specimen shows clearly the immense size of the pus cavity, its thin walls and its ample opening for drainage.

57 West Fort Street.

DIET AND CARDIOVASCULAR DISEASE

In heart and blood-vessel disease, particularly in the more advanced stages, diet is more than half of the whole treatment. This is true because cardiovascular disease has its origin more than half the time in errors of diet. There is no doubt that the increase of cardiovascular disease as shown by statistics is, in a great measure, due to the altered dietary of the present generation. Formerly a man who wrested his living from the soil got enough exercise, he was always well supplied with an abundance of vegetable food, and he escaped the consequences of a diet too rich in protein, and the consequences of the suboxidation of his food.—Bishop, *Medical Record*, Sept. 28, 1912.

DOCTORS WILL STILL BE DISSATISFIED

Evidently impressed by the vehemence and unanimity with which the English doctors have protested against the inadequacy of the remuneration offered them under the new insurance law, the British Government has increased its appropriation for medical service for the poor by $5,000,000 a year. This will enable it to pay the selected physicians $1.80 annually for each insured person intrusted to their care—a considerable advance from the $1.44 originally offered, but still below the $2.04, which is the very least for which the doctors have been saying they could, would, or should do this work.

Even the largest of these amounts seems absurdly small, but, if received from each of a large number of persons, many of whom would go through the year without requiring any treatment at all, it might be something like a living wage. Our own "lodge doctors" are content with analogous sums, but they are considered disgraces to their profession, and they usually are, in more important respects, too, than in the acceptance of small fees.

The only reasonable plan for the British Government to adopt in carrying out its insurance ideas would be to employ the doctors on fair annual salaries, making them public officials giving all their time to public service. That is what is done by all countries with respect to army and navy surgeons, and such salaries are accepted by thoroughly efficient men with no loss of professional or personal dignity.—*New York Times*, Oct. 4, 1912.

REDUCTION OF COLLE'S FRACTURE

In a Colles' fracture, the future usefulness of the hand depends on perfect reduction of the deformity. In robust subjects general anesthesia will be required. After reduction the forearm is encased in antero-posterior plaster-of-Paris splints, the hand being well flexed and the splints not extending beyond the metacarpophalangeal articulation. This enables the patient to freely use the fingers and prevents the stiffness that followed the old plan of treatment. The bandage should be removed once a week and the parts thoroughly massaged. Where any difficulty is experienced in keeping in good apposition the broken ends in fractures of the metacarpus, metatarsus and phalanges, the fracture should be exposed under rigid asepsis, holes drilled in the bone, and the bone sutured with kangaroo tendon or 30-day chromic catgut. In all fractures, skiagraphs should be taken after reduction has been accomplished in order to determine the accuracy of apposition.—W. W. Harper, *International Jour. of Surgery*.

THE MANAGEMENT OF GONORRHEAL RHEUMATISM*

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It has been estimated that about 2 per cent. of joint affections complicate gonorrhea. These cases range in severity from the most evanescent joint twinges to the formidable purulent arthritis. A moderate case of gonorrheal arthritis will give the practitioner much anxiety because of the slight relief afforded by ordinary methods of therapeusis; in spite of all recognized modes of treatment, the condition often fails to improve, and the impatient sufferer seeks relief elsewhere — even to the extent of patronizing irregular practitioners.

The array of remedies vaunted for the relief of gonorrheal rheumatism leaves the physician in doubt as to the value of any one measure of relief, and often all of them fail though conscientiously applied.

While the gross pathology of gonorrheal rheumatism is known to us, the factors bearing on the recrudescences noted are not fully understood. It appears that the influence of the gonotoxins on joint structures may be one of the factors without the presence of the microorganism, and that the absorption of toxins from some distant focus of infection, such as the prostate or seminal vesicle, may account for the joint inflammations. We are aware that surgical measures devoted to the eradication of focal infection frequently are followed by cure of the rheumatism.

In about one-third of the cases of this affection, the gonococci can be demonstrated, directing, therefore, our therapeusis in the majority of cases to general measures designed to the elimination of the infected foci and the destruction of neutralization of the gonococcus or its toxins.

As has been stated, subjectively there may be the slightest suggestion of joint pains in gonorrheal infection, or the patient may be inflicted with a most destructive form of arthritis, depending in the one case on the local effect of absorbed toxins and in the other on the local presence of a virulent organism.

König classifies gonorrheal arthritis as follows:

1. Hydrops gonorrhoicus.
2. Arthritis serofibrosa.
3. Arthritis purulenta.
4. Arthritis phlegmonosa.

These classes really represent various steps in the gonorrheal process in the joints, and one may merge into another, or the simplest form may be so mild as to be hardly noticed; so mild even, as to have attention directed to it only by the slight pain experienced.

In all forms, the periarticular structures participate in the inflammation to a greater degree than those of the joint proper; this being characteristic of gonorrheal joint invasion. The above classification is determined on the character of

* Read at the Forty-Seventh Annual Meeting of the Michigan State Medical Society, Muskegon, July 10-11, 1912.

the effusion. In the simple serous form, there is an effusion into the joints which would resemble any other subacute synovitis, though it is more chronic in character. The serofibrinous or plastic type, is the commonest seen, and includes almost all the refractory cases. Even in these the gonococcus cannot always be found.

At the Johns Hopkins Clinic, of twenty-nine cases the organism could be demonstrated in but sixteen. In this form, fibrin is deposited on the cartilages and is afterwards organized by vessels growing on the synovial membrane, causing erosion of the cartilage on which the granulations rest. The folds of synovia adhere, the capsule becomes thickened and even the ligaments, tendons and bursæ become involved in the plastic exudate; the damage resulting seriously hindering the function of the joint, on the subsidence of the active inflammatory process.

The purulent types are merely severer forms of the above and resemble any purulent arthritis. In these the organisms are almost always present. Secondary infections play little part in any but the severer forms.

It is agreed that the organism reaches the joint in all cases by the blood from the focus of local invasion — this occurring at any time, but generally within the first four months of infection.

TREATMENT

From a consideration of the pathology, it is evident that treatment must follow along these lines: 1. Prompt eradication of the local disease. 2. Use of a suitable antitoxic or bacteriolytic serum. 3. Especial attention to the joint by providing immediate rest.

Local treatment is indicated in the acute invasion of the mucous membranes according to the individual preference of the practitioner. Next, the areas of retention should be sought after and eliminated. These latter are all-important, and are usually overlooked. They include:

1. The urethral follicles, which are best treated by massage on a sound.

2. Cowper's glands, found on each side of the median line 1 cm. from apex of the prostate. Massage or incision is indicated.

3. The prostate gland—all tender infiltrated areas should receive massage followed by irrigations with silver salts.

4. The seminal vesicles. These constitute the principal foci of infection. Three measures are employed, each having its champion, though all are directed to the essential eradication of the local disease. They are: massage, vesiculotomy and vasotomy. The latter operation has lately shown excellent results with the least trauma.

5. The epididymis. Herein the Hagner operation will be found of service.

6. The kidneys and ureters. As has been recently recognized, the ureteral catheter may demonstrate the gonococcus through cultural measures.

7. In females, the glands of the vagina, urethra and cervix should not be overlooked.

The joint itself should be immobilized at once to secure absolute rest. Massage in the early stages before the focal infections are eradicated is distinctly contraindicated. In the subsiding stages, the joint should be gently moved actively and passively to restore its function. In the active stage of the joint inflammation, the Bier's treatment, hot air, douching and electricity will be of little service, though after movement has been established, it may be employed.

Systemic treatment of gonorrheal rheumatism has resolved itself to the use of

vaccine and serum to the exclusion of drugs.

It is open to question as to whether the treatment of those cases amenable to vaccine and serum therapy is being handled on a rational scientific basis. As we will show, vaccines are of doubtful utility, and reports on vaccine therapy are at least open to question as to whether or not the authors are overenthusiastic and have failed to take account of cases which, under ordinary conditions, would not undergo spontaneous improvement or cure, reasoning all improvement to follow along the lines of the opsonic resisting powers, a theory which in the opinion of the writers is fallacious and ill-founded.

Vaccine therapy has utterly failed in acute infections, in general gonococcal infection, in lesions of the female adnexa, and reports are doubtful in prostatitis and chronic urethritis, and ascending lesions of the genito-urinary tract.

The vaccines against gonococci therefore differ from many other more evident potent vaccines in that they fail in even subacute cases.

This brings us to consider the gonococcus as an entity and set it in a class by itself in connection with opsonic therapy.

Let us consider the life history of the gonococcus—it exists, not as many of the pathogenic organisms, free in nature, but is strictly parasitic for man. It is transferred from human to human. Its life is analogous to that of the more highly organized animal parasites — it taking advantage of a natural function of human life to provide itself a means of continuous and perpetual existence.

Let us consider the gonococcus as we would the guinea worm, the *Dracunculus medinensis*, for example, to illustrate the idea we wish to convey. Here we have a variety of filaria whose normal adult existence is in the connective tissue of man —when the female is ready to expel its embryos, it locates itself in some part of the human anatomy, likely to be in juxtaposition to outside water. From this point the embryos are expelled through the skin and reaching water, complete their life cycle by finding their way into the human stomach and thence the connective tissue.

We have in the gonococcus, an organism which, by its very nature, must live from one individual to another to complete its cycle of existence. It lives for the most part in the human genitalia. In order to provide means of conveyance, the leukocyte is utilized—the inflammation resulting from the gonotoxin causing sufficient liquid media to ensure easy connection through contact from one individual to another, completing the life cycle of the organism.

Now, as to the leukocyte — we claim that this responds not in the sense of a defensive agent to the part, but as an agency of transfer for the gonococcus. The opsonic theory here is set to naught as to the protective power of the leukocyte — in this case the white cell is a positive detriment, aiding in the spread of the infection and perpetuating the existence of the gonococcus. Surely, therefore, we cannot apply therapy on the opsonic basis in consideration of the above.

Is it not a fact that intracellular gonococci are always vigorous; that they take stains well in the cell and that the only forms seen poorly stained are extracellular? This brings us then, to state that any measure designed along the lines of opsonic therapy is wrong. From the above we may deduce therefore, that destruction of gonococci is by means of bacteriolysis and not phagocytosis. This is shown clinically, by the benefits derived from serum therapy, as opposed to vaccine treatment.

That the opsonic therapy is of no avail is admitted by investigators when they conclude that the opsonic index is of no guide in treatment. Most investigators have found a lowering in the index, the reason for which is obvious in consideration of the above facts in the cycle of the gonococci. Further, it may be said that even in individuals strains are not influenced, as all agree that stock vaccines serve as well as the personal variety.

Now to return to the reports from vaccine, we propose to show that these are not at all convincing. Keeping in mind the clinical classification of the joint lesions, it is easy to understand that vaccine therapy, if used, would not be of avail in the purulent arthritides where surgical intervention is imperative. The other classes take either one of two courses. They recover spontaneously or run into a chronic form with disappearance of gonococci in the joints, but with severe structural changes and loss of function. We claim that the optomistic figures from vaccine, include the benign class as stated.

Jarvis[1] concludes:

1. Vaccines are inoffensive and the stock variety act as well as the personal.

2. Opsonic index guide unnecessary, and small doses as efficacious as large.

3. Emphasis—that local treatment should not be neglected.

His ideas of curative results are inconclusive.

Schmidt[2] concludes after citing a series of cases:

"The matter is not settled. It is not always an easy matter to determine that an effect is due to the agent employed. Neither form of treatment has caused me to become optimistic."

His table of cases is interesting, in that the percentage of benign cases, which would have ultimately recovered, are included in cures.

Thus, by serum therapy:

Acute Cases: Cured, 1; improved, 5; not improved, 1; total, 7.

Subacute Cases: Cured, 2; improved, 2; not improved, 2; total, 6.

Chronic Cases: Cured, 1; improved, 3; not improved, 2; total, 6.

By vaccine therapy:

Acute Cases: Cured, 1; improved, 5; not improved, 0; total, 6.

Subacute Cases: Cured, 4; improved, 1; not improved, 1; total, 6.

Chronic Cases: Cured, 3; improved, 4; not improved, 0; total, 7.

Note that of the total, there are in the serum series, four cures in nineteen cases, in the vaccine series there are eight cures in nineteen cases, surely these are not wonderful results in either case.

The optimism for vaccine therapy is kept alive by the rather unimportant individual reports of cases, results which in most ways should be included in the series mentioned of benign infections, which would ultimately recover—the failures not being recorded.

For example, here is a typical report of this kind:

McOscar—*Lancet*, 1909, reports a case of rheumatism one month duration when seen first. Under vaccine, recovery in five weeks. Writer is optimistic about vaccine treatment. The authors of this paper have seen many cases recover in less time without vaccine.

Another style of report may be cited.

Whitmore—*Philippine Journal of Science*, December, 1910. Used vaccines on eighteen cases and has reports of twelve more treated with same remedy. "All promptly recovered." But qualifies this by stating that he has learned since that two showed only moderate improvement and one was uninfluenced. This author's percentage of recoveries is much higher than the others, but concludes, however, "It is in no sense a cure-all."

Serum therapy offers the most hopeful outlook in all but the chronic cases of gonorrheal rheumatism. The antitoxic

1. Jarvis: Presse méd., 1910, xvii.
2. Schmidt: Therap. Gaz., 1910, xxvi.

serum prepared after the method of Rogers and Torrey, by injecting suitable animals with large numbers of killed germs and afterward treating the serum as in the case of diphtheria antitoxin, is the most efficacious preparation. Seventy-five per cent. of successful results are claimed by this method of treatment. The remedy is giving us the most brilliant results, but the writers wish to qualify by adding that the serum will be of little avail unless the focal infection is eradicated.

In addition, the joint itself must be considered a source for the further spread of the disease and extension to other joints may be prevented by enforced and immediate rest of the part. This is in view of the multiplicity of lesions, there being about an average of one and a quarter joints involved to each case.

Our experience with the serum has developed the following points:

1. It must be used early and given in doses of at least from 4 to 10 c.c.

2. The serum should be given in at least three day intervals.

3. As the preparation is not standardized, it must be tested out in each case.

In our clinic, we have treated fourteen cases of gonorrheal rheumatism with thirteen cures, one case resulting in ankylosis and loss of function.

The conclusion put forth in this paper as to the relative value of vaccines and sera follow careful individual observation and trial of both remedies — it is hoped that our experience may call attention in the one case to the value of anti-gonococcus serum and in the other to the inefficacy of vaccines.

By courtesy of the Research Department of Parke, Davis & Company, the authors were enabled to follow certain investigations relative to the above paper.

UNION CARDS FOR M.D.'S

"Medical blacklegs" is the pleasant term that good union physicians in England hurl at those members of the profession who are suspected of traitorous willingness to accept terms offered by the government under the National Insurance Act. The act provides free medical service to the insured, the attending physician to be compensated out of the insurance fund. The British Medical Association, on behalf of a large majority of physicians, has indignantly rejected the government's terms. In effect it is a strike, and those doctors who do not stand by the union come in for about the same verbal amenities that a staunch union teamster frequently visits upon a strikebreaking "scab."

We have not heard of any bricks being thrown, but there are threats of social ostracism; and an acute critic points out that the union doctors go far toward syndicalism, because they propose to accomplish their end by direct action—that is, by withholding their services until the government surrenders.

It is an interesting shindy and illustrates again the silly futility of decrying "class feeling" and "class prejudice." Wherever a given set of men have a common economic interest you will find those men acting together the moment that interest is threatened—whether they are clergymen, lawyers, doctors or brakemen. And in that cause they soonest lose their tempers. On all other points of difference they may agree with you amicably; but touch the payroll—and they reach for a brick.—Editorial *Saturday Evening Post.*

THE HEART IN LABOR

If an acute failure of compensation occurs during labor it should be met by prompt measures and delivery should be completed as rapidly as possible. Venesection with the extraction of a pint of blood, or possibly more, will take the load off the distended right heart and allow the heart to shrink down. The use of digitalis, strychnin, etc., may prove of great advantage, but the most important thing at this time is to relieve the strain by emptying the uterus as quickly as possible.—Newell, *Journal A. M. A.*, Sept. 28, 1912.

THE OPERATIVE TREATMENT OF FRACTURES*

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The operative treatment of compound fractures has been not unusual for many years, but the operative procedure in closed fractures is rather new; only recently have surgeons given their attention to this method of treatment of closed fractures.

Great advances have been made in abdominal surgery; a large amount of time and energy is and has been devoted to perfecting the technic of various operations, while the treatment of fractures has made but little advance in the past fifty years, although the setting of a bone is one of the oldest of surgical procedures.

The use of the *x*-ray has been of some advantage in the treatment of fractures, and it has also shown us how impossible it is to get the fragments in good apposition; yet while not in perfect apposition a good functional result is often obtained. However, the laity have an idea that it is an easy matter to reduce a fracture, and the bone should be in perfect line.

The treatment of a fracture is of the utmost importance. Instead of treating it in a rather indifferent manner, and trusting to good fortune for satisfactory results, the surgeon should give it his individual attention as much as he does to abdominal operations.

The *x*-ray is a great aid in securing a better approximation, but no matter how perfect an apposition may be obtained it is far more difficult to maintain the fragments in good apposition, and often absolutely impossible in spite of extension and various splints.

Some will oppose the operative treatment of closed fractures because it makes a compound fracture of every closed one, and there is danger of infection. It is true, infection may happen, but with modern surgical technic it is reduced to a minimum. However, the possibility of infection cannot be disregarded. Another argument against operative treatment is that it is not necessary to have the ends of the bone in accurate apposition in order to secure union, and a good functional result. In many instances this is also true, and I do not think that all closed fractures should be operated on. If the radiograph shows that the ends are in a fairly good position and that there is no shortening, and a probability of good function without crippling deformity, I believe it is a safe rule to let well enough alone; but if it is an oblique, spiral or comminuted fracture, and cannot be maintained in position, and there is shortening and displacement, which tends to recur and possibly result in a crippling deformity I do not hesitate to cut down, and fix the fragments by means of a plate and screws, or by other means.

Lane says:

> "In deciding as to whether the surgeon should operate upon any particular fracture, or whether he should be satisfied to treat the case by manipulation, splints, massage, active and passive movements, etc., the importance or not of restoring the fractured bone or bones to their normal should be the guide."

Recently, more surgeons are using the open treatment, and it seems to be growing in favor. It is needless to say that it

* Read at the Forty-Seventh Annual Meeting of the Michigan State Medical Society, Muskegon, July 10-11, 1912.

should not be undertaken anywhere, except in a well-equipped hospital and by one who is experienced and is in the daily habit of thorough asepsis. It should not be undertaken by the occasional operator, as poor results and disaster will follow, and the operative treatment will be brought into disrepute.

In cases of comminuted fractures and faulty union, the seat of fracture can be cut down on and the old callus chiseled or sawed through, the ends of the bone being held in apposition with plate and screws. Various materials have been used in fixing the fragments. Silver wire is probably the most common suture used. Bronze aluminum wire has been used and highly praised by some; it is strong and can be twisted up very tightly without breaking. Picture wire is often used. Kangaroo tendon is recommended, and I think in cases where there is not much tension it is possible that kangaroo tendon might be given the preference over a non-absorbable material.

Long screws are indicated where a piece of bone is broken off, as for instance, fractures of the maleoli, and great trochanter, and neck of femur; but where there is much strain as there is on the shaft of a long bone, the plate is by far the most satisfactory. Murphy uses nails in Pott's fractures, and in fractures of the neck of the femur and humerus.

In some cases of double fractures, as for instance both bones of leg or forearm, and in cases where there are several fragments it is not always possible to put on a plate and have the screws hold. If it is comminuted it may be necessary to fasten all the fragments with silver wire or chromic gut, and put on a plate to hold them to the distal and proximal ends of the shaft. Occasionally it is necessary to use more than one plate to hold them securely.

Dr. Martin of Philadelphia says:

"If the fracture be oblique and not likely to be subject to severe strain, screws, nails, staples or even tendon suture through drill holes will prove adequate. If by none of these means can the reduced fracture be retained in position, the steel plate is indicated."

The advantages of the operative treatment in selected cases are: better results are obtained; there is a very noticeable absence of pain; fragments of muscles are easily removed from between the ends of the bone which would prevent union taking place; injuries to nerves, and repair of muscle, tendons and blood-vessels is possible; removal of spiculae and relief of tension in the surrounding parts due to extravasation of blood; the skeletal mechanics are restored to normal; it affords an opportunity to remove all obstacles which prevent reduction by any other method; shortening is prevented; if the fracture involves a joint there is less liability to be impaired motion in same.

As to what becomes of the plates: Many will have to be taken out on account of a persisting sinus and irritation; others on account of infection. I have had to remove plates and wire in a few instances, when the wound would not heal, and at various periods from five to ten weeks; and a few on account of infection. Others I have been able to trace for a year or until the patient was lost track of, and up to the time the individual ceased to be under observation the plate or wire had given no trouble. The more tissue intervening between the plate and skin there seems to be less liability of a sinus forming.

At the time of removing the plates I have found the screws in most instances quite firm in the bone.

Drs. Bartlett and Hewitt of St. Louis have done some experimental work to determine how firmly the screws hold:

"An average pull of 95 4/5 pounds is required to dislodge clean No. 3, ⅜ inch screws, from dog bones with average cortex of 2 mm. after they have been in place from one day to

seventy-one days. On the other hand 41 7/9 pounds will accomplish the same thing with infected screws."

Dr. Starr of Toronto says:

"The whole question seems to me to sum up into two ideas—the one, skeletal deformity with or without functional results; the other, a perfect anatomical result; with perfect function and a short convalescence."

Lane advises operative treatment in most closed fractures, and his results are convincing; while other well-known surgeons claim equally good results with the conservative treatment; and, again, others stand on middle ground in the matter and think it advisable to operate on certain well-selected cases.

At the present time, I believe that the operative treatment should not be routine and that a radical position in either direction should be taken, but that each case should be a law unto itself, due consideration being given as to which method will give the best results, with the least danger to the patient. Quoting Lane:

"Till surgeons generally have improved their technique sufficiently, and have acquired a greater familiarity with the operative treatment of fractures, a varying degree of risk must necessarily accompany any open operation, and this danger must be taken into consideration."

There are certain well defined and clear indications for operative interference, but the patient will be infinitely better off to be treated conservatively, than to be operated on by some one who is not thoroughly grounded on the technic. Therefore I would advise under most circumstances that more care and skill be used in the non-operative treatment; a careful study of the case at hand and the action of the muscles in causing displacement. Reduction of a fracture should be undertaken with a clear and well defined idea of the mechanics of the part; and use every means of reducing the fracture by intelligent use of extension, counter-extension, posture, etc., and never neglect to make use of an anesthetic. If after a thorough trial and well directed efforts, reduction is impossible or unsatisfactory, the patient should be sent to the hospital and the operative treatment advised. I think that practically all fractures of the patella and olecranon should be operated on using an absorbable suture.

TECHNIC

Asepsis must be carried to its extreme development. The most strict asepsis in these cases is indispensable. Operative treatment should only be undertaken in a well-equipped hospital; where if in the hands of a competent operator, there is little danger of infection. Rubber gloves and face masks should always be worn, and a number of special instruments are absolutely necessary in order to do perfect work. Lane and others have devised instruments for holding the ends of the bone in apposition and for manipulating the fragments and thereby avoiding the contact of the fingers with the wound. The preparation of site of operation should be thorough. It must be well washed with soap and water, shaved and sponged with alcohol 70 per cent., and a sterile pad applied; when patient is placed on the table the field of operation is flushed with ether, and alcohol 70 per cent., and then painted with iodine. After the incision is made of sufficient length to give ample room, the skin around the wound is covered with towels and fastened at the sides and ends of the incision with small tenaculum forceps, thus preventing anything coming in contact with skin and wound.

The incision should be made at a point which will give easy access to the fracture, avoiding important nerves and blood-vessels by retracting to one side and separating the muscles at their intermuscular planes. If not possible to do this, separate

the muscular fibers in their longitudinal direction.

The seat of fracture having been exposed, fragments and pieces of tissue, if there are any between the ends, may be removed. The ends of the bone should be freshened if it is an old ununited fracture. The fragments are approximated by means of an elevator and long bone forceps devised for that purpose. The plate is now placed over the periosteum and the bone and plate held with a bone and plate-holder; the holes can now be drilled and screws put in with very little trouble. Hand drills are, as a rule, continually giving trouble, the point coming out when it has penetrated the bone or becomes loose in the holder, besides considerable pressure is required to make the point enter the bone, and more trauma is produced. The Richter hand drill is the best hand drill that I have used.

I have had great satisfaction in using the dental foot-power engine, the head and driving shaft of which can be easily removed and sterilized in carbolic-acid solution and rinsed with alcohol. The velocity attained with this apparatus makes the drilling of the holes easily and quickly accomplished. I have used the ordinary twist-drill points which can be obtained of a machinery and tool-supply house.

The size of the drill point should be the size of the base of the screw and not the diameter of the periphery of the thread. This is Lane's method of determining the size of the point which will give the screw a secure hold in the bone when it is driven home.

Screws.—Are a special pattern differing from the ordinary wood screw in that the thread is cut up the head and of various sizes usually three-eighths to five-eighths inches in length, guage No. 5 and 7. For children a smaller screw is used—guage 3. I believe the screws should not be long enough to penetrate the marrow, and I now cut the screws off as short as possible.

Plates.—As designed by Lane are steel of various sizes and shapes for the different bones for which they are intended. There is now on the market a vanadium steel plate which is claimed to be stronger and at the same time somewhat smaller, which may be an advantage in lessening the amount of foreign material in the wound. Some operators advocate aluminum strips with holes bored at intervals from which a piece may be cut the desired length as required.

The plate should be applied so that as much tissue as possible will intervene between it and the skin, otherwise there will often be a sinus which will not close until the plate is removed.

Closing the Wound.—Remove all clots and control hemorrhage. The deep fasciae and (all) muscular layers should be carefully closed with catgut, leaving no dead spaces. The skin may be sutured with silkworm gut or No. 2 double chromic, preferably without drainage.

A splint is applied as usual, or a plaster cast, leaving a window for the purpose of inspecting the wound.

Time to Operate.—It is the consensus of opinion that the most favorable time to operate on closed fractures is one week after the injury. It is thought that infection will be less liable to follow. The postponement of operation gives the tissues an opportunity to recover from the local injury and the lymphatics have by this time resumed their normal state. The circulation has become reestablished and the surrounding structures are better able to react from the additional trauma of an operation.

The operator will often find his mechanical ingenuity taxed to the utmost; difficulties will be encountered in approximating the ends of the bone even after the

fracture is exposed. An extension apparatus which can be attached to the operating table, is a great advantage in overcoming shortening. It is surprising how much traction is required to overcome muscular contraction particularly if operative treatment is delayed longer than a week or ten days.

Compound fractures, in my opinion, should be treated expectantly until it is evident that no infection is present before putting on a plate. If the wound is infected, then of course it should be treated until the wound is clean before attempting to operate.

SUMMARY

Closed fractures should be operated on when indicated.

Operation should not be undertaken except in a well equipped hospital, and with the most strict asepsis.

Any fracture which cannot be reduced or when reduced recurs, or a possibility of a crippling deformity resulting, should be operated on without hesitation.

Fractures of the patella and olecranon should always be operated on.

The noticeable absence of pain is very striking.

An exact diagnosis can be made and any obstacle interfering with union or accurate approximation can be removed.

Foreign bodies and spiculae are easily removed and injuries to adjacent nerves, tendons and muscles may be repaired.

Period of disability ultimately very much shortened in many cases. As much care should be exercised in applying splints or a plaster cast as though no internal means of fixation were used.

Tension due to extravasated blood is at once relieved.

Do not operate until all other means have failed.

410 Washington Arcade.

VAGARIES AND CREDULITY OF MEDICINE

One sometimes wonders why mythology should have dealt so liberally with the healing art, and the god Aesculapias should be called the Father of Medicine, when authorities admit that he was the son of Apollo and the nymph Cironis, whom Neptune loved, and who was changed into a crow by Minerva, and yet the thinker never ceases to wonder at the vagaries of our profession, nor at the credulity of those in need of our service.—Swope, *New Mexico Med. Journal.*

DANGERS OF GOITER OPERATIONS

The main dangers in goiter operations, generally speaking, are hemorrhage, compression of the trachea, difficulties arising from the location of the goiter (retro-esophageal, intrathoracic, etc.), and injury to the recurrent laryngeal nerve. In exophthalmic goiters the increase of the toxic symptoms following the operation is by far the gravest danger.—Schwyzer, *The Journal Lancet.*

CARE IN ANESTHESIA

Examine every candidate for anesthesia thoroughly for evidences of cardiac, renal, or pulmonary fault; remember the omnipresence of tuberculosis; give the patient the benefit of the doubt, and, except with the most positive contra-indications, use chloroform.—Hart, *Journal-Lancet*, Oct. 1, 1912.

SEWAGE DISPOSAL

A sewerage system, by getting rid of outdoor toilets, greatly conduces to decency, comfort, and cleanliness, and even obviates one danger of disease (carriage of toilet discharges by flies from the outdoor closet); but it also concentrates all those discharges into one foul union and the disposal of this often endangers other communities. There is no real advance in transferring the burden of infectious disease from one community to another by passing the sewage on from one water-supply to another.—Hill, *Journal-Lancet*, Oct. 1, 1912.

CHRONIC DIARRHEA AS A SURGICAL SYMPTOM*

LOUIS J. HIRSCHMAN, M.D.
Detroit

In the last few years largely through the investigation and study of the two prominent symptoms of disturbed intestinal function, namely constipation and diarrhea, the attention of the medical profession has been focused on the terminal five feet of the intestinal tract, the anus, rectum and colon.

The etiology of the vast majority of cases of so-called diarrhea has been discovered through the refinement of the technic of rectal and sigmoidoscopic examination. Likewise in the determination of the true sources of obstructed normal drainage of the intestinal tract, called constipation, in addition to instrumental aids to ocular inspection, the radiograph has been, as in chronic diarrhea, of invaluable assistance in settling, once and for all, the question of definite etiology.

It is my intention to-day to treat of the colon and its pathologic conditions which give rise to accelerated functional activity.

In order that there may be no misunderstanding, I wish to state here and now, that I do not claim that all cases, or even the majority of cases of chronic diarrhea are amenable only to surgical treatment, but I expect to demonstrate that many cases whose predominant symptom is the one under discussion, will be restored to health and normal function by therapeutic aid available through surgical or mechanical means.

When one speaks of diarrhea one naturally pictures a case suffering from frequent liquid, and more or less painful fecal evacuations, and almost invariably a search is started for its causation in some disturbance of the digestive functions.

This is undoubtedly the correct line of reasoning to follow in the case of an acute attack of enteritis or diarrhea, and especially so in those cases occurring in infants and children, and in adults where a clear history of recent dietary excesses or indiscretions is present.

When a case of diarrhea is persistent, rebellious and unaffected or slightly so by ordinary dietetic and medicinal measures, and tends to become chronic, one must look for the etilogic factor of this chronicity, not in the failure of gastric or intestinal physiology, but in pathology located in the intestinal tract and that nearly always in its lower five feet, the colon, rectum and anus.

You will note that it is not my intention to discuss those cases presenting diarrhea as the predominant symptom where the etiologic factor is self-evidently found in recent toxic or dietary disturbances, but to limit myself to the mention of the large number of cases presenting frequent bowel movements as a prominent symptom, in which their source can be discovered only on procto-enteric examination and treatment by surgical means.

One is apt to raise the eyebrows, shrug the shoulders, and enquire what new fields the surgeon intends to next invade. I beg to assure you that the field is not new, but for a long time most shamefully neglected or overlooked. The proctologist is simply pointing the way to a means of successful treatment.

* Read at the Forty-Seventh Annual Meeting of the Michigan State Medical Society, Muskegon, July 10-11, 1912.

When a patient has a catarrhal inflammation of the eye, the nose, the bladder, or the uterus, we immediately recognize the pathology of congestion, then engorgement with increased function manifested by free mucus discharge. A continuation of the condition leads to ulceration of mucous membranes, and hemorrhages more or less profuse.

If the ulcerated part is supplied with sensory nerves, we have an additional and extremely important symptom, the manifestation of pain. Again, if any hollow muscular viscus of the body is irritated, whether it be by the presence of a foreign body or local ulceration, Nature attempts to rid herself of the offending or intruding irritant by repeated, and more or less successful, efforts at expulsion.

This is manifested in the nose by blowing, sneezing and increased out-pour of mucus; in the eye by frequent winking and profuse lacrimation; in the uterus by frequent painful contractions, mucus discharge and metrorrhagia. The bladder evidences its efforts to rid itself of irritants by frequent small, painful and later bloody passages of urine in various forms of cystitis.

Is it any wonder, than, that the bowel, the largest and most powerful muscular eliminative organ of the body should respond in a similar manner to internal irritation? That it does, and with rapidly disastrous results, I will show by the brief histories of a few cases recently occurring in my practice which clearly illustrate certain types of procto-enteric disease.

It may be set down as an axiom that every case of prolonged diarrhea, so-called mucous colitis, dysentery, intestinal catarrh or flux, has its etiologic source in a local inflammatory condition of the intestinal tract, commonly in some portion of the large bowel and usually ulcerated. It is astonishing to one who is accustomed to making frequent examinations of the lower bowel to note how often ulcers of the rectum and sigmoid, in particular, are disclosed, whose existence was wholly unsuspected by both patient and medical adviser. These ulcerations are almost always secondary to some injury to the mucous membrane as a result of the breaking down of the lining of the bowel following some form of local inflammation.

Many of these cases are acute, grown chronic, but when ulceration once starts, it tends to spread either by extension or by contiguity. It is the discharge from the the ulcerated surfaces and the hyperperistalsis induced by Nature's efiorts to expell the irritant which starts up the diarrhea whose chronicity is coexistent with the continuance of the presence of the ulcer.

Many cases of colitis are caused by the presence of pin-point ulcerations, which are revealed only on close inspection through the proctoscope or sigmoidoscope.

It makes no difference whether the exciting microbic agent be the colon bacillus, streptococcus, Shiga, Klebs-Loeffer, or tubercle bacillus, the spirochete, or ameba; local treatment to the ulcer is of prime importance, notwithstanding the employment of the most thorough constitutional, dietary, medicinal, vaccine, or serum therapy.

Every case presenting diarrhea as a persistent symptom should have a procto-sigmoidoscopic examination, and usually radiographs as well, and the number and degree of the ulcerations usually found will determine the local or surgical means necessary to effect a cure.

I will discuss the indicated therapy in connection with the reports of a few cases illustrating varying types of pathology which were brought to me on account of the predominating symptom, chronic diarrhea. Suffice it to say, however, that the same local treatment can and should be

given to a bowel ulceration as is employed in the treatment of an ulcer on any exposed surface of the body or any other hollow viscus accessible to examination. The three cardinal principles to be followed are physiologic rest, cleanliness and drainage. With these principles in mind, let me briefly report the following cases:

CASE I.—Mrs. S. G., aged 70. I was called to see her on account of a persistent diarrhea characterized by frequent passages of mucus slightly blood-stained, and small soft movements accompanied by considerable tenesmus. Four weeks previously she had suffered from an attack of acute indigestion accompanied by diarrhea, and the attending physician had prescribed large quantities of bismuth and salol for its relief. After two days there was a recurrence of the diarrhea, but the character had changed as noted above. Digital examination revealed a hard rough mass the size and shape of an English walnut, located in a diverticulum which had formed in the lower posterior rectal wall. After dilating the sphincter under local anesthesia, this was removed and examination showed it to be composed largely of salol. Relief was prompt and permanent.

This case illustrates the fact that insoluble drugs and food materials may sometimes accumulate and act as a foreign body. Nature's efforts at expulsion brings on the symptoms of diarrhea.

CASE II.—Mr. R., aged 39. Was referred to me on account of a morning diarrhea which occurred daily, starting at about 4 a. m. He had between that hour and 8 o'clock from three to five motions, which aside from their softness and urgency, were normal in consistency and other characteristics. This had been going on for three years. He stated that usually the first movement was solid, and while the desire for defecation was urgent, it was with great difficulty that he was able to expell the first portion. The other movements were easier. Examination disclosed the presence of an old fissure with accompanying sentinel pile and surrounded by considerable induration and old scar tissue. The sigmoidoscope revealed the presence of a sigmoidal ulcer. The radiograph showed dilatation of the sigmoid and some ptosis of the transverse colon. The indicated therapy was excision of the fissure under local anesthesia and cauterization of the sigmoidal ulcer. In this case when the feces reached the ulcerated portion of the sigmoid, hyper-peristalsis hurried the stool into the rectum where it was opposed by a tonic spasmodic contraction of the sphincter due to the irritation of the old fissure. The removal of the pathology cured the case.

CASE III.—Mrs. G. B., aged 30. Had always been constipated until a year ago, then had symptoms of intestinal indigestion with severe colicky pains and distention. Her stools increased in number until she was passing from eight to twelve daily. The stools contained large quantities of mucus, some blood, and were never formed. My examination disclosed considerable tenderness and rigidity over the upper right abdominal quadrant and considerable gaseous distention of the cecum. Radiography showed ptosis of the cecum, distention, and acute angulation and adhesion of the hepatic flexure. Laparotomy with suspension of the cecum, relief of the adhesions of the colon and a Lane's kink, restored the normal position and circulation of the colon with prompt recovery of the patient.

This case illustrates a type where congestion of portions of the colon, due to adhesions and angulation, causes an increase in glandular activity and increased effort on the part of Nature to rid herself of the irritating and undesirable material.

CASE IV.—Mr. H. S., aged 36. Had syphilis nine years ago, fistula-in-ano six years ago, and typhoid a year later. Bowels had always been easily upset since typhoid attack. For the last year had had diarrhea, passing from ten to twenty stools daily. Had treated off and on for so-called "catarrh of the bowels." Every stool contained considerable mucus, some blood, and recently pus. Had been loosing control lately. Examination disclosed a blind internal fistula and a tubular stricture with ulceration as far up as the sigmoidoscope could be passed. Between the ulcers were many vascular polypoid growths. Colostomy was proposed and done, with the idea of giving physiologic rest to the affected bowel. When the abdomen was opened, the infiltration and ulceration was found to involve not only the rectum and sigmoid, but the descending and half of the transverse colon. It was necessary to bring the right half of the transverse colon up to use as an artificial anus.

The stricture was excised from the rectum at the same time. Improvement was immediate. The ulcerations under irrigation from above have gradually healed, and the man's weight has increased from 122 to 148 pounds. Five weeks after his operation an intravenous injection of salvarsan was administered, since which time there has been a considerable diminution in the discharge. The ulcerations have healed so well that it is my intention to close the colostomy and restore the continuity of the bowel, a procedure which seemed hopeless at first.

The point I wish to make by reporting this case is that temporary colostomy by providing physiologic rest and an opportunity for cleansing the affected portion is a logical procedure in cases of chronic ulcerative colitis and has been eminently successful in my hands.

CASE V.—Mr. C. B., aged 40. A missionary returned from the Philippines. Suffered from an attack of amebic dysentery while in the far East and since his return has had almost daily attacks of diarrhea, characterized by the passage of blood and mucus. Proctoscopic examination showed typical stellate, amebic ulcerations in the rectum and sigmoid, and scrapings from these revealed the ameba coli in great numbers. Appendicostomy, using the author's appendicostomy irrigating tube, was performed and under the administration of daily irrigations of formalin solution, the patient made an uninterrupted recovery. Whether appendicostomy should be performed for direct irrigation or not in all cases of amebic dysentery or other forms of colonic ulcerations, may be a question for considerable debate, but I must say in my experience this method of treatment has cured practically every case. We do not see many cases of amebic dysentery in my part of the country, in fact, the only ones that do come under our observation are from the South or the far East. I have had cases, however, where ipecac and quinin and other so-called specifics have failed and direct irrigation from above has cured the case.

CASE VI.—Mr. T. T., aged 60. Was referred by his physician for my assistance to relieve an acute engorgement and inflammation of some old chronic hemorrhoids. This, the doctor informed me, had been brought about by the irritation caused by a persistent and chronic diarrhea of over six years' duration. The patient had suffered from no pain except during the recent inflammation of the old hemorrhoids. His color and general condition were good, but the fecal discharges always contained some blood and were particularly foul-smelling. Examination showed the presence of large prolapsing and thrombotic hemorrhoids, but four inches above the hemorrhoids on the posterior wall of the rectum and extending up to and involving the recto-sigmoidal juncture, was found an adeno-carcinoma.

This case illustrates the fact that every case of so-called chronic diarrhea whether the stools contain blood or not, whether the patient appears robust or not, without regard to age or other local rectal conditions in spite of the absence of pain, one should always examine the rectum and sigmoid to exclude the possible presence of a malignant growth as the true source of a suspected chronic diarrhea. If a carcinoma is not found on sigmoidoscopic examination, radiography may disclose a mass higher up in the colon.

CASE VII.—Mrs. E. C. B., aged 47. Previous and personal family history negative. Was referred with a history of recurrent attacks of diarrhea for the last five years becoming particularly aggravated during the last four months, during which time she has had occasional attacks of sharp colicky pain in the right inguinal region. She has had imperfect control since an operation for anal fistula performed some six years ago. Her weight has not varied materially in the last three years and her general appearance is that of perfect health. The fecal discharge contains some pus, large quantities of mucus, and small particles of dark red blood. No clots and no bright blood. Examination of the bowel discharge showed the presence of tubercle bacilli. Procto-sigmoidoscopic examination revealed a normal condition of rectum and sigmoid except for the damaged sphincter and a small ulcerated spot in the posterior commissure of the anal canal. Abdominal palpation revealed a rigidity of the right rectus muscle and pain on pressure over McBurneys point. On account of this, the presence of tubercle bacilli in the stools, a diagnosis of tuberculosis of the ileo-

cecal valve was made. Abdominal section verified the diagnosis and revealed marked induration of the ileum, ileo-cecal valve, and the wall of the cecum for a radius of two inches from the valve. The appendix was normal. Eight inches of ileum, the cecum, and half of the ascending colon were resected and a lateral anastomosis made between the ileum and the transverse colon with a resulting uninterrupted recovery of the patient. Two weeks later a plastic operation was done to restore the continuity of the sphincter. This was also successful and a recent report from the patient four months after operation reports her happy, with normal daily movements, and perfect health.

This case well illustrates the fact that the patient may have a chronic diarrhea with or without loss of weight with negative procto-sigmoidoscopic findings and the pathology can be located only on abdominal examination and the indicated surgical measures carried out to the complete relief of the patient.

CASE VIII.—Mr. W. G., aged 46. Gives a history of the gradual onset of diarrhea growing progressively worse until four months from the onset of his trouble, he was having from twelve to twenty stools daily all containing more or less blood. Diet, rest, in bed, and colonic irrigations, all were faithfully tried by several physicians with little or no relief. He was finally brought to Detroit for advice and treatment. My examination showed the entire sigmoid covered with ulcerations which bled at the slightest touch. There was some tenderness over the whole colon but no rigidity of the abdominal muscles. A temporary colostomy was advised with the idea of putting the bowel at rest. I operated at Harper Hospital through a median incision with an idea of bringing down the transverse colon. I found, however, that the whole colon from the hepatic flexure to the rectum was highly injected, friable, and the ulcers extended this whole distance. The appendix was slightly injected but the cecum and ascending colon were not affected. There were many enlarged mesenteric glands. I brought up the upper portion of the cecum making a large artificial anus at this point through which all of the bowel contents were discharged and the colon irrigated. The result was a prompt cure of the condition.

In this case a right-sided temporary colostomy was the only procedure which would give physiologic rest to the entire affected colon and allow the indicated irrigations to be carried out.

The reports of these cases which are selected from a large series, are offered to illustrate several classes of cases presenting hyperperistaltic activity as their principal symptom in common, the etiologic source of which can only be found on painstaking examination of the abdomen and lower bowel by means of the proctoscope, sigmoidoscope, radiograph and the microscope. The curative measures for the conditions thus discovered are purely surgical and the happy results in cases presented in the above classes simply justify the operative measures advocated and employed.

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VALUE OF CHLOROFORM AND MORPHIN

I am of the opinion that the liberal use of morphin, chloral hydrate, bromids, chloroform and ether will preclude the need of forceps in 95 per cent. of all cases. There are other preparations, mostly of the nostrum variety, which are at times used with some degree of success, but I am not yet prepared to replace our old friends chloroform and morphin with agents, the use of which has caused more harm than their advocates are willing to admit.—S. J. Goodman, *Ohio State Med. Jour.*

EARLY OPERATION FOR CLEFT PALATE

The proper time to operate for cleft palate is as soon after birth as possible. Nothing is gained by delay except the consequences of faulty nutrition. The plasticity of the newborn tissues, their capacity for repair, the trifling hemorrhage, the slight risk to life, the possibility of obtaining a broad, well-vascularized flap before the teeth have begun to encroach upon the mucous membrane combine to make early infancy an opportune time for repairing this defect.—W. F. Campbell, *American Medicine.*

MICHIGAN'S MIDWIFE PROBLEM*

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In the lower forms of life reproduction is the great aim of any species. In the simplest forms the production of offspring marks the end of parental life. As we ascend the scale of animal evolution we note that maternal care is needed to provide for the descendant, which requires more time to develop to a state where it can provide for itself. The death of the mother means a calamity for the offspring, possibly its death also. When we reach man, the climax of animal evolution, we find that the female must pass through parturition in safety in order to care for her children and lead them to be serviceable members of society.

With ideal care this highest type of female should pass through gestation and confinement unimpaired, and should remain a healthy member of society. That this is not an accomplished fact is an indictment against our civilization. It would take a much longer paper than this to attempt to enumerate the needless sacrifices and sufferings of the mother because of child-bearing in our day. I will only attempt to show one phase of the problem — the midwife.

With the advance of civilization the practice of obstetrics has not been neglected. One may read of the improvements made by the Chamberlains, Tarnier, Semmelweis and others; how the knowledge of asepsis has almost stopped puerperal sepsis; the relief that anesthesia and surgery have extended to delivery. At present a well-cared-for pregnant woman has an infinitely better chance for a healthy useful life and a healthy child than had her progenitress of a few decades ago. Why then the mortality, the subsequent ailments of those who have survived, the great infant mortality at birth, and the even greater morbidity shortly after birth? One is forced to believe that these can only come from improper care during gestation, parturition and the puerperium. I do not wish to be understood that the blame for this lays entirely at the door of the midwife. I do believe that she is a factor in continuing this undesirable condition of affairs, and therefore should be eliminated from the practice of obstetrics.

The practice of midwifery is about as old as civilization, and antedates the practice of medicine by centuries. That the mother of Socrates was a midwife indicates that they were in high repute at that early date. In Europe the midwife developed as the accoucheuse for all classes, while a few physicians developed as consultants in obstetrics, and these were only called to aid the helpless midwife in unusual cases. I need only mention the fact that Maria Louise was confined at the birth of the Duke of Reichstadt in 1811 by Madame La Chapelle, and Queen Victoria was successfully escorted into the world in 1819 by an imported German midwife, to show how recently the midwife has held a place of importance and honor. Even to-day she holds sway over the masses of Europe and in most cases a physician is called only as a last resort.

In this country we have not had occasion for the development of the midwife;

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the American of American parents is wont to call a physician for confinements. With the immigrant came the accoucheuse, so we have had this class grafted on our society. With characteristic American forebearance we have ignored her presence and practice until we have found her to be a menace to public health and welfare. If we are to improve maternal and infant well-being we must face midwifery as an art which has outlived its usefulness and therefore is to be discarded.

With the intention of getting data on the subject of the midwife practicing in Michigan I had a circular letter printed and sent to the State Board of Health and to the health authorities of the larger cities of the state. The following list of questions were asked:

1. Is the practice of midwives in your city regulated? If so will you please send me a copy of the law?
2. How many midwives are practicing in your city?
3. How many births are reported annually by midwives?
4. What per cent. of total births reported does this represent?
5. How many midwives have had special training in schools for midwives?
6. What are the usual fees received by midwives in your city?
7. Does the midwife make a practice of giving gynecological treatment?
8. Are there any suggestions you could make for regulation of midwives from your knowledge of local conditions?

The result was far from satisfactory as I received information from only six cities. The appended table gives the net result of the answers received:

	1	2	3	4	5	6	7	8
				%				
Bay City.....	Yes	7	72	6	0	$3-5	No	Yes
Calumet.....	No	17	143	19½	1	$5*	Yes	Yes
Detroit.....	No	112	...	18	...	$3-10	Yes	Yes
Grand Rapids...	No	?	346	12	?	.....	No	Yes
Hancock.....	No	13	115	33	...	.....	No	Yes
Menominee... ..	No	5	75	33	0	$5-8	Yes	Yes

* Per week.

The secretary of state of Michigan wrote:

"According to the regulations of the Michigan State Board of Registration in Medicine midwives are not recognized under the medical act, and have no professional or legal status in this state, but, according to the birth registration law, midwives are permitted to certify to births."

So we see that our solons have created a paradox in which the midwife is not recognized, but must report the results of her ignored labor.

Not satisfied with the results of these efforts I wrote to several physicians, asking for local information on the subject. From what information I have been able to glean from the paucity of data obtainable, I find that there are no local laws to regulate the practice of midwifery except in Calumet where a large Finnish population requires seventeen midwives imported from Finland to deliver 143 women annually. While the number practicing in the state does not seem large, there are more in actual practice than we think as they prevail wherever the foreign population is great. Their fees are smaller than any physician could do the same work for. They usually do the work performed among the higher classes by both physician and nurse. There is a tendency to practice gynecology especially among the foreign born who are attracted by the meagre fee and the knowledge of the mother tongue used by the midwife. Some of the fees are ridiculously small for a period of attendance after confinement. The consensus of opinion among all physicians and sociologists is that immediate regulation is desirable.

In Detroit there is an effort being made by the Board of Health to regulate the practice of midwifery and to eliminate the very unfit. They prevail among the foreign born especially the Poles, Huns, Austrians,

Bohemians and Russians. The fees are very modest varying from three to five dollars a case. This includes delivery and care of woman and child in a daily visit for ten days. Recently there has been a tendency on the part of those less busy to reduce their fees to three dollars, and there is a demand by the midwives themselves for regulations of fees by the Board of Health. A nurse is sent to the house of the midwife to inspect her environment, bag, etc., and examine her qualifications. A record is kept of 112 who are on the credited list of the Board of Health. No law exists to regulate them, but the efforts made by the Board of Health are meritorious and are a foundation for better regulation. Here we find all grades from the well-trained clean midwife, educated in a good school, to the slovenly, filthy, untrained, ignorant woman who gains her livelihood among the extremely poor foreign born. There are others not on the Board of Health list who nevertheless practice.

In certain country districts where there are numbers of foreign born, the midwife has been grafted on the district through the advent of the settlement. Most of these are unqualified and only the ignorance of the people permits their survival. The fees are extremely low (even to $2 for the care of patient and babe for seven or ten days) but the office is prized as this woman is purveyor of local gossip. This type can hardly be classed as midwife as she is quite unqualified, and necessary regulation could dispose of her at once.

So in surveying the so-called midwife in this state we find the most varying grades of efficiency. The better prepared type found in small numbers in the larger cities is perhaps as efficient as the average physician in normal confinement. This type is uncommon and makes up but a small percentage of the entire number. The rest vary greatly in education, cleanliness, efficiency and conscientiousness. It would be impossible to properly grade them as to qualifications for their work. Perhaps we might group them broadly into two clases: (1) Those fit for regulation; (2) those unfit. The former would include those having had proper preliminary education, a certificate from a recognized school of midwifery, and possessing habits of cleanliness, respect for law, a conscientious regard for the proper technic of delivery and care of the patient post partum.

Has the midwife outgrown her usefulness? She is becoming so as the foreign born attain wealth, culture and education. We meet her here as an institution brought with the emigrant. In the past she has been of service where there was a lack of trained accoucheurs. She served her purpose then as she cared for the poor who would otherwise have suffered neglect. The lack of regulation here tends to make her inferior to her well-trained foreign sister who is under governmental supervision. Increased wealth, education and culture of the foreign born have created a demand for better care of the mother during confinement. So the physician gradually supplants the midwife among the foreign born who have been here longest. With Americanization the midwife is discarded. Among the very poor she is retained because of the amount of service given for a small fee. Were there to be a general uplift of all the lower clases, especially the foreign born, the midwife would disappear, and properly trained physicians and nurses would replace her.

As this visionary condition is not apt to occur, we ask what is to be done to eliminate the worst type, regulate the better type, and finally to supercede her as soon as possible? I take the position that, as the best midwife is not as well trained as a good physician, she has no moral right to

remain as one of our civilized institutions. She must not continue because of the inability of the poor to pay for suitable service during parturition; if necessary, the state must provide suitable service as an insurance for living, healthy mothers and living healthy children. Bad obstetrics means unhealthy women, unnecessarily high mortality rate among the recently confined as well as among the new-born, high rate of mortality of infants, and a greater number of chronic ailments in youth and adult life resulting from a bad start in life. Pediatricians agree that many of the faulty habits of infancy are begun almost at birth: the result is a high mortality and morbidity rate among the very young. Just how many of the chronic disorders of adult life result from these early faults are unknown, but it is certain that many disorders may be traced to disease of early youth which might have been prevented. How often are obstetrical cases mismanaged, skilled assistance called too late, improperly cared for, or neglected during puerperium, and resulting disorders entirely neglected. Women attended by midwives suffer from more and greater lacerations than they would have, if properly attended. Usually these lacerations are not repaired at once and consequently the women must suffer a curative operation which could have been avoided. Puerperal sepsis is censurably common, and the survivors do not enjoy health because of resulting pelvic disorders. Emergencies of the lying-in room are not handled with proper skill, consequently the disasters of dystocia in the path of the incompetent accoucheuse. Among the new-born ophthalmia neonatorum, septic melena and icterus from an infected cord, later the innumerable intestinal disorders resulting from bad advice or lack of good advice on infant feeding or care, are all chargeable to inefficient care of the attending midwife. Should woman be subjected to enfeebleness which circumscribes her usefulness, lessens her ability to care for her family, and takes from her, her birthright of good health and happiness?

From a humanitarian view each woman deserves proper treatment during this trying period. It may be that this was impossible in the past because of a lack of properly trained accoucheurs. If so, the midwife has justified her calling for that period. Now with a sufficiently large number of properly trained physicians the need for her services has passed.

If the midwife is not as capable as a well-trained physician, then her services are costly to the state even if cheap to the individual. Healthy people have a certain definite value to the community: sickly people are a definite burden. Perhaps some day a genius at figures may be able to tell us in dollars and cents how much is lost to the state by the practice of bad obstetrics. Then our cupidity will direct us to improve our course as humane reasons have failed to do. Is it not a senseless burden to the state to have mothers sickly, and offspring weakened? Should the midwife be permitted to continue when the practice of her calling means a loss to the state as well as misfortune to the individual?

It would be folly to advocate immediate disbarment of the midwife from practice. The present need is for education to better obstetrics, and regulation that will compel the unfit to discontinue the practice of midwifery. If we strive for the ideal condition in which every woman will receive competent care during and immediately after confinement, we must plan to displace the midwife entirely. There must be substituted a competent attendance for those now served by her. This service must be free, or only a nominal fee charged. Various plans may be used as the needs of the

community require. If the substituted service is properly carried out, there may be no need for further regulation. The midwife will be easily supplanted by a better agent. Without proper provision for the care of the parturient, suppression of the midwife would be unjustifiable. In this state we have three sides to the question: the large city, smaller cities and rural communities. In the two large cities where large foreign populations exist, the greatest number of midwives are found practicing among the foreign born. Here the midwife may be displaced by an increased number of city physicians, by maternity clinics, by increasing hospital facilities and by more work on the part of the general practitioner. An ideal system is that of a maternity dispensary which may be supported by the municipality or by charity. A staff of physicians and nurses, specially trained for this work, live at the dispensary and devote all their time to this work. All cases are investigated and examined before labor. Any poor person may find immediate care through this institution. Normal cases are confined at home; abnormal cases or those in filthy homes are sent to maternity hospitals. This plan is feasible and appears to solve the problem in any large city. As a corrolary to its work a sufficient number of maternity beds in suitable hospitals is required.

In the smaller cities the problem may be worked out by the local medical society. Perhaps the best plan is to have a system whereby a certain number of beds in the local hospital may be held for maternity use, and the outdoor work done by young physicians whose practice is not extensive. This would give needed practice to the younger men and better service to the woman than a midwife would. An experienced obstetrician should be in charge of the work and be prepared to care for emergency calls in abnormal cases. A number of trained nurses may also be provided so as to give each case proper care at least during confinement.

Rural communities may apportion cases among young physicians, or grant each physician a small fee for every confinement of women who are unable to pay. When possible, cases should be sent to the nearest maternity hospital for confinement shortly before term. As there are few midwives practicing in rural communities, there should be little difficulty in supplanting them there.

It is the consensus of opinion of those who are informed that immediate legislation is needed. Detroit and Grant Rapids should have local laws giving the local Board of Health power to supervise, examine, license, disbar and regulate midwives practicing there. There should be a state law enacted, giving the State Board of Medical Registration power to regulate all midwives practicing in the state. This would obviate the necessity of creating a new board and the work could be well cared for in conjunction with present duties of the board.

I believe that these laws are needed to control the situation until the midwife is made a superfluity through education of the masses to good obstetrics and by providing good obstetricians and nurses to care for all poor. It will require conscientious effort by physicians and altruists in every country to let every person know the benefits of good obstetrics and the possible harm of faulty accouchement to interest the masses to make the change. It is also necessary for each physician to do his best in a conscientious effort to raise the standard of obstetrics to a higher plane that it may be accorded greater respect than it receives at present. Every mismanaged case lessens the confidence of the public in our ability to do creditable work and gives an excuse for the practice of mid-

wives and healers. The more nearly perfect our work the more willing will the masses be to place themselves in our care at this trying period.

As a matter of economics it would pay the state to provide suitable accommodations for those unable to pay for them. Dead babies, sickly infants and even weakly adults, the result of a bad start in life, dead mothers and sickly women are a detriment to the community and a loss to the state. Healthy mothers and children are an asset to the state. Would it not be cheaper to provide a prophylactic in the way of careful accouchement than to pay for hospital care and institutions for those improperly cared for at confinement?

The midwife remains a relic of past ages of ignorance. The need of her labors has passed with the advent of modern obstetrics and sufficient capable accoucheurs. The alchemist, witchcraft, slavery have been dicarded by the enlightenment of the masses. From the past ages midwifery alone remains a blot on our civilization. It remains because of the indifference of the more enlightened of us and the poverty of the unfortunate. We cannot neglect her who needs the best care during her most trying time. We must not permit the helpless babe to be blighted by ignorant care when competent assistance is available. On us as physicians rests most of the responsibility for the enlightenment of the masses, and provision for the proper care of all women who are pregnant.

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GYNECOLOGICAL HINTS

Before making a physical examination of the patient the outer clothing and corset should be removed while she is in a sitting posture on the table. The heart and lungs should be first examined. She should lie on her back with the knees flexed on the abdomen. All bands should be loosened and the abdomen thoroughly examined. This thorough examination of the chest and abdomen will in many instances determine whether or not an operation should be performed on the genital organs.

A highly padded table covered with a clean sheet is much better than an examining chair, and infinitely better than a bed for purposes of examination.

For an ordinary examination very few instruments are required. A medium-sized bivalve speculum, a small and medium-sized Sims' speculum, a Sims' depressor, and long dressing forceps are the instruments most frequently used. For a thorough exploration of the urethra, interior of the bladder and uterus, special instruments are required and only the expert will learn anything from their use.

It is very important to differentiate between a caruncle and a protrusion, or, more strictly speaking, a prolapse of the urethral mucosa from the meatus urinarius. In the former condition thorough anesthesia of the affected part with a 2 per cent. solution of cocain and the application of a fine ligature will bring about a cure. On the other hand, if this method of treatment were resorted to in a case of prolapse, the condition would be rendered worse. Delicate plastic surgery with the patient under general narcosis is necessary for its cure.

Vulvitis and vaginity are almost invariably associated, and if the former is cured the latter will usually disappear.

In a few instances vulvitis is due to parasites, or other external irritants, and when the cause is removed the disease will vanish.—Waldo, *International Journal of Surgery.*

ANESTHETIZING CHILDREN

Never begin the anesthetic until the surgeon is ready to operate. This is a thing that I wish to impress not only on anesthetists, but on the general operator. I have seen many patients who have been kept under anesthesia anywhere from five to thirty minutes before the operator was ready to begin.—Kilmer, *Arch. Pediat.*

SYMPOSIUM ON FEE-SPLITTING*

Ethics—Its Application to "Fee-Splitting" and "Commission Business"

THEODORE A. MCGRAW, DETROIT

In the discussion of the ethical questions, involved in the practice of dividing fees between the family physician and the surgeon, we have to take into consideration the peculiar relations which exist between the medical man and his patients. More than in any other business or profession, they are those of trust. The physician is admitted into the inmost family circle. He sees its members in health and sickness, becomes acquainted with all of the family weaknesses, and is often their most intimate friend. He is frequently consulted on questions not pertaining to his profession and is called on to advise people who are too weak and ill to judge rationally of their own affairs. When a surgical operation becomes necessary, it is he who chooses the surgeon and with whom the family consults about the surgeon's fee. They would not do this if they did not feel implicit confidence in his friendship and in his absolute honesty.

It has always been held by all people, and it is a legal axiom, that any business, conducted as a trust, demands much more scrupulous fidelity and honesty than other transactions. On the other hand, the physician has to conduct his business on business principles in order to earn the means to support himself and family. He is entitled to full pay for services rendered, although he may choose, in certain cases, to relinquish this right, and he should not be held open to criticism for asserting this right, provided that it is done openly and without any kind of deception.

Every man, who pays a bill, whether for goods or for services, has the right to know exactly what he is paying for, and it is that duty of the medical practitioner to so conduct his business relations with his patients, as to warrant their full exposure, in all their details, whenever it might be demanded. When choosing a surgeon for an operation, honesty requires that he make his choice with sole regard to his patient's interests and that he should never accept a bribe, which could possibly influence his action and make him fail in this evident duty. It demands, too, that in arranging with the surgeon for the fee that he should protect the family from exorbitant charges. His own payment for his visit to the hospital, and his presence in the operating room, should be obtained honestly and frankly from his patient and not secretly from the surgeon. It is because the custom of dividing fees leads in these respects to dishonest practices that it is repugnant to every high-minded physician.

The physician, who is given to these methods, selects the surgeon, who will give him the largest percentage of his fee and practically sells his patient to the highest bidder. The surgeon with the connivance of the family doctor enlarges his fee, to meet the doctor's demand. The physician tells his patient that the great expense is incurred to meet the surgeon's charge. The truth is that he, in the surgeon's charge, conceals a fee for himself, of which he is ashamed or afraid to make his patient aware. The truth may be, in certain cases, that the surgeon and the physician have conspired together to get from the patient all that he can stand, for when once such relations have been established, they will surely develop into systems of extortion. The family physician will hunt after these profitable cases and useless and unnecessary operations will become common. There are, doubtless, many medical men who have entered into such relations, without full consideration of their meaning. I would call the attention of such physicians to the fact that money so gained is acquired under false pretenses. If the transaction could be brought into court, no judge could pronounce them other than fraudulent. No honest man can afford to put himself in such a position, nor can the medical profession afford to condone such practices by its silence. If they are tolerated, the great mass of surgery will fall into the hands of the most unscrupulous and heartless members of the profession, and medical practitioners, forgetful of their relations of trust, will descend to the meanest and most degrading commercialism.

* Report of a committee, read at the October 7 meeting of the Wayne County Medical Society.

The Honorable Position for the Family Physician to Assume—Can He Be Expected in Justice to Those Under His Care and His Own Self-Respect to Assume Any Other?

CHARLES G. JENNINGS, DETROIT

Bonaparte in naming a bequest to his great Surgeon-General referred to Larray as "the most virtuous man he had ever known." The biographies of the noted physicians of history are full of evidence that they were men who possessed virtue and honesty above the conventional requirements of their day. Benassis, the country doctor of Balzac, stands out as an example of the rugged honesty and self-sacrificing devotion to the highest interests of his patients that characterizes the family doctor of fiction. From our own experience and observation we know that the character given to the physicians of history and fiction is paralleled both in country and city in the hard working, upright, family physician of to-day.

A spirit of sturdy honesty has animated the rank and file of the medical profession and that it has been recognized and appreciated is shown by the confidence and trust that have been given to him.

With the highly specialized development of modern medicine and surgery have come new problems of practice that require new adjustments of professional relations and remuneration. Frequent consultations and the reference of his patients to physicians of special skill, have given the family physician a new and delicate responsibility. It has become his duty to study the qualifications of medical and surgical experts available for consultation that he may best advise those who trust to him their health and lives. He must know when, and to whom he should go to give his patients the best medical and surgical advice and skill.

As in his own care of the patient, so in this selection of a consultant there must be but one basis for his action—the highest welfare of his patient.

As the family physician has been trusted in his direct dealing with his patients, so he should be trusted in his new relation, and he should here be as honest as he has been in the old relation. But how long will he be entitled to this trust, and how long will he retain the confidence and respect of the community when he forgets his responsibility as trusted counsellor and sells his consultations, operations and special cases to the highest bidder? How long can he retain his own self-respect and accept clandestine remuneration from a consultant for services for which he presumably has been paid?

We are all familiar with the various phases of the one argument that has been put forward to justify the surreptitious division of fees. One of them is: The local attendant has had the care and responsibility of a case that ultimately comes to an operation. On him has fallen much work and responsibility. He has made the diagnosis and has advised the proper treatment. The surgeon is called, operates and returns to his home in a few hours with a fee, perhaps in excess of that which the family physician hopes to obtain for weeks of work and responsibility. Other phases of the argument might be cited, but they all have the same foundation, namely, the inadequate compensation received by the family attendant, as compared with that of the consulting physician or operating surgeon when in joint attendance on a case.

Undoubtedly the attending physician is often too poorly paid. In my own relations, as attending physician, I have experienced this injustice. The remedy, however, is not for the attending physician to try to take from the surgeon or consultant a part of his fee, or to make him a clandestine collecting agency, but to render a proper account for the knowledge and skill he has given and for the responsibility he has assumed. From my own experience, I should say that the fault is often with the family physician, in that he does not put a proper valuation upon his services when he attends a patient in association with a consultant. But wherever the fault lies, no condition can justify the secret collection of his fee from the consultant. It is true that often no actual injustice is done to any one concerned, but the fact that the transaction is hidden condemns it. The abuses that may come from it are actually appalling.

The whole question of the division of fees is one of honesty. The physician who clandestinely divides a fee with a consultant deceives his patient for gain, and violates that trust that should be to him one of the most gratifying rewards that come from his professional labor.

Therefore, in justice to those under his care, and to maintain his own self-respect, the family physician can take no other position than one of uncompromising opposition to the secret division of the consultant's or operator's fee.

Why Is the Surgeon Importuned by the Family Physician to Charge a Fee, Which Is to be Divided Between the Two—The Transaction Being Unknown to the Patient or His Friends?

WALTER P. MANTON, DETROIT

One of the seemingly inevitable results of the increasing struggle for existence is the dulling of the individual conscience and a loss of moral perspective. Men become callous to the ethical sense and, in their striving for material success, willingly or unconsciously, drift or are led into practices detrimental to character and honesty. As society is made up of the good, the doubtful and the bad, it is not to be supposed that members of the medical profession differ from the general run or are immune from the laws which govern all. The practice of medicine is, at best, no sinecure; sloughs of despond are more often met with than delectable mountains, and few attain to the heights of financial security, with shoulders freed from the burden of uncertainty and care. Increased cost of living is progressive, and the financial demands upon the physician enlarge in ratio to his family growth and the class of patients among whom he practices. Unfortunately his fees are not augmented in like proportion; competition is active; there is an oversupply of doctors, and the monetary returns are not adequate. The medical profession as a whole is and always has been underpaid for services rendered.

No wonder, then, that in the running some fall by the wayside and wander deviously. If the harm done by these could be limited to themselves, while their condition might be deplored, it would not be as bad, for they could be easily dealt with and eliminated, but in a solidarity like the medical profession, the follies of one may be laid at the door of all, and individual disgrace and dishonor reflected upon the whole profession, just and unjust suffering alike.

The matter of fee-splitting is purely one of ethics and morals. Why offenses are committed against one's self and society is a problem not easy of solution, and the answer to the question, why the family physician importunes the surgeon for a secret division of the fee received by the latter, is beset by many difficulties. If the reasons advanced for this practice are analyzed, however, it will probably be found that, in essence, the matter can be resolved into three distinct motives, cowardice, avarice and graft, each one of which enters to a greater or less degree into every transaction of this kind.

Numberless ingenious and specious arguments and excuses are offered by the perpetrators of this discreditable business in extenuation of the act. Some excuse themselves on the plea that in no other way can they establish a practice; others say that the money received is their own, and they can do with it as they like; some pretend to believe that they are justified in exacting payment for cases referred to the specialist, on the ground that they have put him in the way of obtaining a fee, which he otherwise would not have received; some, failing of remuneration for services rendered the patient, seek to make the consultant a collecting agency for their default; while others desire only to add to their income, whether they believe themselves entitled to such consideration or not. Again, as one cannot be tempted where there is no temptation, the error into which some have fallen, appears to be not of their own initiative, but due to the wiles and allurements held out by others to which they succumb.

When a man desires to shortcut the years of honorable practice building and by a single bound to leap over the heads of others whose patient work and struggles have advanced them in professional achievement and success; when one starts out with the ignoble ambition, by fair means or foul, to do the largest practice, or accumulate more cases than can be shown by his fellow practitioner, it is easy to resort to doubtful methods, and one way in which to accomplish his design is to buy his patients; and the itching palm always knows where the feel of the money is largest, and from whom the rake-off can be most readily obtained. For a man of this kind, although hiding his light under a bushel, sees to it that there are cracks enough left open to illumine the way of the covetous. Why is the division of the fee made in secret, unless the act in itself is wrong and thus acknowledged by the participant?

To salve one's conscience by the excuse that such dealings are only temporary, to be discontinued with the object attained, is self-deceptive and profitless; one may reform and experience a change in viewpoint, but he has sown the seed of demoralization, debauched the recipient, and created the desire.

I know of a man, now dead, who was accustomed to receive a commission from a certain surgeon, and I am told that, before he involun-

tarily resigned this life, he remarked that he never came in contact with the last patient so deceived but he trembled in his shoes lest his perfidy be found out.

How can the incentives which incline a man like this, otherwise honorable and just, to stoop to deception for petty gain and prostitute the confidence of his client for dollars and cents, be determined? Are the excuses which I have mentioned, adequate for the selling of one's birthright in dishonor to his manhood and disloyalty to his profession? I think not—for a good name is rather to be chosen than great riches.

The Effect of the Fee-Splitting Upon the Family Physician, Especially in Small Towns, When It Shall Become Known That the Custom Prevails.

HAROLD WILSON, DETROIT

In the literal discussion of the particular topic which has been assigned to me in this symposium, it would be difficult to avoid the utterance of obvious platitudes, a calamity I shrink from. Then, too, a series of platitudes, might constitute a sermon, and a sermon is ordinarily less likely to give its hearers a great moral uplift than it is to put them to sleep. Now, although you may need the sleep more than you do the moral uplift, I shall, nevertheless, endeavor on this occasion to preach no sermon; and further, though I may wander from my topic and must apologize to our chairman, for such an unreasonable divagation, I shall be brief. Moreover, sermons enough have been preached upon this matter of dividing fees.

As interesting as such speculations may be, I shall leave it to your constructive imagination to picture the precise effect which the custom of fee-splitting may have upon the family physician, for I have a certain timidity in attempting to describe the moral states of other people. It is quite difficult enough to make a just estimate of my own. I might tell you how somebody else, with unholy secret money in his pocket, ought to feel, and how his character ought to deteriorate. You can guess this quite as well as I, but the man himself could do it still better, if he could be brought to do it. On the other hand, he could show, perhaps, how much we have erred in considering the division of fees a wrongful act.

Here in this little gathering of ours, there may be family physicians who have shared in this secret partition of money which we call "fee-splitting," and there may be also opulent specialists who have paid their little bonus for business. I cannot say; but we have been informed that this practice is the common habit of many men in many places.

If the division of fees is something good and wise, a legitimate commercial transaction, even though it may not accord with our loftiest ideals, its effect upon these who practice it must be good. If it is a proper and honorable thing to do, those who do it will not hesitate to acknowledge the fact, at least I can see no reason why they should hesitate. In fact, I cannot but believe that if there are any in this audience who dissent from the expressed and understood opinion of this committee and I may say of the profession at large, adverse to the practice, I cannot but believe that this is the golden moment for them to present their views. If, however, there is no voice raised in protest or rebuttal, no one who is willing to confess, or to defend his participation in the divided fee; no one in short to act as the devil's advocate, then it seems still more unnecessary to follow the ramifications of an ethical analysis of the matter. It is our business, when we have once settled the fact that the division of fees is morally wrong—and I should think there had been enough reams of paper written and printed on to demonstrate this simple truth —it is our business, not so much to analyse and philosophize as to make some effective move toward stopping a practice that has so many friends and so few defenders. Not that there is any novelty in this suggestion, but in the abatement of any evil, it is always better to do something than to content ourselves with talking.

It must not be understood that there is anything wrong in the literal division of a patient's fee. If several physicians act jointly in the care of a patient, it is obviously right that the money which he pays should be divided equally among these physicians. The added element of secrecy is what spoils the moral quality of the act. The practice of medicine introduces into life no special or particular ethical principles. The physician's obligations to his patients or to his colleagues are the common obligations to humanity.

I am quite convinced that the moral status of this whole matter is well enough understood

by the medical profession, not only because it has been more than abundantly discussed, but also because a little introspection would in any case, readily decide it for each of us; yet, at this moment, it is less a matter of individual conduct than of concerted action. We figure here as parts of an organic whole, the medical profession, in which you and I are simply specialized units, and in this place, at least, it is our duty to act for the general welfare. There has been, and still is, more or less open and covert criticism directed against the medical profession for the practice of dividing fees. Public opinion has settled quite definitely that the result of this practice is to lower the dignity and character of those who embrace it. The hidden character of the act makes the knowledge of it in the public mind, and even among ourselves, fragmentary circumstantial and indirect. It is a matter of street gossip rather than of personal knowledge. How much does any one of us know as to the extent to which his colleagues split fees? As a matter of fact, little or nothing. How impossible then to apply a penalty for its indulgence. Personally, I do not believe the evil can be corrected in any such fashion, although the suggestion has been made for example, to secure the withdrawal of hospital privileges from men who divide fees; yet it is most desirable, as I have already said, to do something to stop the practice if it exists, and to allay that suspicion in the popular mind, which regards us all as possible participators in the custom.

From the standpoint of the family physician there is this to be said: He has seen too often and with too much bitterness the surgeon or other specialist, to whom he has referred a patient, take from that patient so much money, that he himself was never able to collect a penny for his own arduous and often self-sacrificing labor. This is the beginning of the wrong which culminates in the secret division of fees. No remedy that either directly or indirectly ignores and fails to reach in some way this manifest injustice will be either adequate or successful.

The effect of the division of fees upon the family physician, whether in town or country, is primarily, at least, to give him a sure monetary return for his services. The practice originated for this purpose, but it is a clumsy device to attempt to remedy one evil by another. The unscrupulous surgeon divides the fee, not as a means of justice to the family physician, but for the purpose of securing business and diverting money into his own pocket. The scrupulous surgeon may do it for other reasons, but he, at least, will welcome any better means of doing justice to the hard working and poorly paid family physician.

Once again I wish to emphasize the need for action, and I trust that before this meeting shall have adjourned we may have made some earnest and wise move toward the elevation and conservation of those professional ideals which after all are what make the practice of medicine worth while.

At the proper time I shall move that the secretary of this society shall be authorized and directed to submit the following statement to each member of the society for his signature:

We, the undersigned, members of the Wayne County Medical Society, believing that the secret division of fees among physicians is inconsistent with the highest and best ideals of the medical profession, hereby declare that we neither approve nor engage in such practice.

Fee Splitting from the Surgeon's Standpoint. Presentation of Resolutions, Endorsing the Principles of Medical Ethics of the A. M. A. and Making Membership in the Wayne County Medical Society and the Practice of Dividing Fees, Directly or Indirectly, Incompatible.

FREDERICK W. ROBBINS, DETROIT

We belong to a profession whose glory has been sung down the ages and whose numbers hold ideals higher than those prevailing in the strictly commercial world. Before this body it is scarcely necessary to present arguments in favor of the resolutions to be presented.

Until within a few years the question of secret division of fees was never the subject of discussion and later has been spoken of only to be condemned and those engaged in its practice have been very careful that their acts should not be generally known. In the East, usually conservative, little has been heard of this method of building up a large surgical practice on the one hand, or of a conspiracy to enrich the physician at the expense of both the surgeon and the patient on the other. Nevertheless in states like New York and Connecticut strong action has been taken in state and coun-

ty societies to stop the growing evil. In the South and West there appear to be many sections affected by this corroding disease.

Fees may be divided as a direct bid for surgical work. The physician may make a demand for part of the remuneration coming to the surgeon. In the latter case, the physician is a grafter; in the former, the surgeon is a conspirator—no one attempts to defend them. They are ashamed of themselves. Commercialism in professional life is demoralizing. It places the desire for money above those finer possessions that come to the honest practitioners of medicine.

The Principles of Ethics is not a dead letter. It is not a collection of phrases, intended to flash upon those not of us—a "holier than thou" sentiment. It is intended as a presentation of principles that can and should be lived up to. We have subscribed to them, and by living and working in accord with them, the practice of medicine becomes a pleasure and the associations with our fellow-workers a joy.

When one builds up his practice by the secret division of fee-play he becomes not only a selfish competitor but a parasite. If he does this openly, he shows his hand and receives the fellowship of those with whom he wishes to associate and frankly lets the profession and the people know that he is engaged in business for "what there is in it." For him, I have much respect, but if he plays the ethical to one class and the commercial to another, he is not honest with his brethren at least. Such a competition, not based upon ability, experience or training, is unfair.

Some one may say: He will do as he likes with his money; if he gives half or the whole of a surgical fee to any physician, on any or no pretext, it is nobody's business.

Such an argument or statement may seem, at first, conclusive, but is it? It is not always true that a man may do as he likes with his own.

Let no one be dishonest with himself by endorsing the Principles of Ethics, and then scheme to accomplish the same thing by indirection. The chief point is that the patient, physician and surgeon know what services are being paid for and how much is being paid. Certainly, the physician who brings a patient to a surgeon, if honest, will if a joint bill is to be rendered, be only too glad to have his own services properly recognized. The physician should be paid just as liberally as the surgeon. In fact, it is quite possible that in a given case the scientific work, done before the patient comes to the operating table, is worth as much, or more, than the work of the operator. For instance, a physician, who studies a patient with a tubercular kidney, decides upon an operation and calls in a surgeon for the operation, is entitled to as much as the surgeon. If, however, the physician can only guess at the possible condition and refers to the surgeon not only for the operative but the diagnostic work, the surgeon is entitled to much the larger fee.

In all this I would insist that the physician is not only entitled to good fees for services, but is entitled to the respect of the public, which he can only gain by a demand for proper remuneration for scientific service.

It is not necessary to further lay before you the evils inherent in fee-dividing or commission-paying. Even from those angles, whence the justification seems at first most plausible, a little thought will demonstrate the custom an error.

Your committee, being convinced of these facts, begs leave to submit the following resolution:

WHEREAS, The custom of secret division of fees among physicians and surgeons has become a subject for discussion and condemnation in the medical and public press of the country; and

WHEREAS, Such practice is distinctly dishonest and unworthy of the high ideals of the medical profession; and

WHEREAS, It fastens the spirit of graft, and if continued will inevitably destroy that respect which the public has always held for us as a profession; therefore, be it

Resolved, That the Wayne County Medical Society hereby endorses Article VI, Section 4, of the Principles of Ethics of the American Medical Association, which reads: "It is derogatory to professional character for physicians to pay or offer to pay commissions to any person whatsoever, who may recommend to them patients requiring general or special treatment or surgical operations. It is equally derogatory to professional character for physicians to solicit or to receive such commissions."

Resolved, That giving or receiving commissions, directly or indirectly, not in harmony with Article VI, Section 4, of the Principles of Ethics, is incompatible with membership in the Wayne County Medical Society.

Resolved, That complaint against any member of the Wayne County Medical Society for violating

the letter or spirit of Article VI, Section 4, of the Principles of Ethics shall receive the judicial attention of the board of directors, who shall, in case the member complained against, be found guilty, request, and if need be compel, his resignation.

THEODORE A. McGRAW.
WALTER P. MANTON.
HAROLD WILSON.
CHARLES G. JENNINGS.
FREDK. W. ROBBINS.

DISCUSSION

Dr. J. H. Carstens opened the discussion which was interesting throughout. Among those who participated were: Dr. Le Seure, Dr. J. W. Vaughan, Dr. L. J. Hirschman, Dr. H. W. Longyear, Dr. Hislop, Dr. H. L. Simpson, Dr. Angus McLean, Dr. Don M. Campbell.

FEE-SPLITTING NOT TO BE TOLERATED

Since physicians are human beings, it is too much to expect that all members of the profession will measure up to the full standard of the established ethics, but it is pretty generally conceded that as a class doctors of medicine are persons of unusually high ideals and unselfish lives. On the whole there ought to be an increase rather than a diminution of the public confidence as a result of the announcement that the Wayne County Medical Society is about to make a campaign against a so-called fee-splitting system now in vogue to a limited extent and that a resolution is to be introduced providing that guilty members be asked to resign.

That the fee-splitting system exists might never have been known but for the uncompromising disapproval of the leaders in the profession. Fee-splitting involves an agreement of doubtful ethical morality between physicians, whereby one doctor, ordinarily a general practitioner, agrees to turn over patients to another doctor, ordinarily a specialist, for a commission on the fees collected.

The system leads to all sorts of abuses and cannot be too strongly condemned. It involves the financial bleeding of patients—a practice hitherto supposed to be confined exclusively to quacks—and the transfer of patients to physicians of mediocre ability, who will enter into a shady deal, rather than to first class men who are above doubtful devices for gaining patients.

It is particularly necessary that this custom be destroyed at once and completely because in this day of specialists it very often becomes imperative that a patient be transferred from one physician to another in order that he may receive the best possible care. The general practitioner who has the interest of his patient at heart will not attempt a delicate operation on the eye, ear or throat, or the treatment of a disease requiring unusual knowledge, but will recommend some doctor who has made a study of the disorder in question. This is a condition all reputable physicians recognize and all intelligent people approve. It is a condition that must inevitably create more or less of an entente cordiale between skilled members of the profession, but so long as the entente is not muddled by financial considerations or narrowed to the dimensions of a trust, the public has no right to complain. It has nothing whatever to do with fee-splitting or quackery.

The Wayne County Medical Society is to be commended for its course in condemning fee-splitting and placing offenders under the ban. For the preservation of the fair reputation of the profession, for the protection of the public from unethical practice involving danger both to health and pocketbook, the society must go through with its campaign to an end, and so thoroughly cleanse its skirts that membership will be a guarantee of probity.—Editorial, *Detroit Free Press*, Oct. 30, 1912.

THE DANGER OF CESSPOOLS

The use of cesspools in almost any form is dangerous if the water supply comes from the soil anywhere in the vicinity, as the ground water is almost certain to be polluted. It has been believed for a long time that, by placing waste material in the ground and covering it up, it would, in time, become so thoroughly decomposed as to be harmless. Such is very far from being true. In excavating for a new building in Philadelphia quite recently, a cesspool of Colonial days was opened, and its contents were so foul as to stop the work. The same thing happened in Rome, where a cesspool was uncovered that had been closed for 3,000 years.—Piper and Smith, *N. Y. Medical Journal.*

The Journal of the Michigan State Medical Society

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The Society does not hold itself responsible for opinions expressed in original papers, discussions or communications.

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DECEMBER

EDITORIAL

Members sued or threatened should communicate at once with the chairman of the Medico-Legal committee, SUGGESTING but not RETAINING a local attorney. Power to engage local attorneys rests entirely with our general attorneys. Complications have arisen in several cases, and considerable trouble and unnecessary expense followed, because members have not observed this rule.

THE YEAR 1912 AND OUR JOURNAL

With this issue we close Volume XI of the JOURNAL, and in closing this year's work, we would like to call attention to two or three features which may have escaped material notice.

In selecting editorial collaborators, we have endeavored to secure collaborators representative of the various parts of the state, but this year a different plan has been pursued. One collaborator has been selected from each Councilor District, and a number of editorials have appeared this year from these editorial representatives in the different districts. The plan has worked very well, and should tend to bring the members of each Councilor District more closely into relationship with the JOURNAL.

We have instituted a department, "The Truth About Medicines," which several of our members have remarked is "one of the most important things the JOURNAL ever did." But most important of all, we have cleaned up our advertising pages, so that there is not an advertisement appearing in these pages of which we may in any way feel ashamed. All firms and preparations listed in these pages are dependable. All pharmaceuticals are approved by the Council on Pharmacy and Chemistry, and are deserving of consideration by our members. Limiting our advertising pages as we do, increases the difficulty of securing advertising revenue, but if our members would read the advertising pages as carefully as they do the text pages of the JOURNAL they would many times learn something of decided advantage. By their patronage our members could materially aid in the financial welfare of the JOURNAL.

We might add, in reviewing the work of the year, that the JOURNAL has published more pages of original articles, more pages of society reports, more pages of miscellaneous items, and has used more illustrations than ever before. This year thirty-three counties out of the fifty-nine are represented in the County Society reports, as against forty-two of last year. The JOURNAL is maintained primarily for the great-

est benefit of the greatest number of our members, and in the interests of the organization. It is our desire that every county society be represented in these reports.

A DEPARTMENT OF HEALTH

In our September number, page 595, we published the health planks of the three leading parties. The Democratic party has been elected to power for the ensuing presidential term. This party is pledged in its platform to the formation of an efficient Public Health Service. It was so pledged four years ago, and in fulfilment of that pledge, Senator Owen of Oklahoma, introduced a bill to carry the pledge into effect. Senator Owen will now have to aid him a Democratic House, probably a Democratic Senate, and a Democratic President. In a Republican Senate, Senator Owen succeeded in having his bill reported, in an emasculated form, from the Committee on Public Health and Quarantine. Let us now hope that with his own political party in power, Senator Owen will reintroduce his original bill, or certain features of the original bill, granting a department with a seat in the Cabinet, rather than a mere bureau, and that he will have success in bringing this matter to an ultimate and favorable termination during the first session of the next Congress, if not the session of the present Congress, which will meet within a few days.

The chief opposition to this measure has been the National League for Medical Freedom, which apparently is lessening its efforts, probably having spent all the money those behind the movement feel justified in spending in a cause which ultimately, if not soon, must be a lost cause.

THE CONFERENCE OF STATE SOCIETY SECRETARIES

On another page we are briefly reporting a conference of the Secretaries of the State Medical Societies, held in Chicago late in October.

Not since the reorganization of the American Medical Association in 1901, and the State Medical Societies in 1902, has there been such an important meeting of executive officers of medical societies. The reorganization was an attempt to unite and strengthen the medical profession of the United States. The American Medical Association is the recognized national representative body as the state medical societies are the recognized bodies in the various states, through which this unification of the profession must be secured. Unity of action, unity of conditions are necessary to bring about the best results. It is a fact that some state societies have their fiscal year beginning at one time and some at another. Some carry member in arrears for three years before cancelling their names from the rolls; some drop them promptly on the first day of January of each year.

One or two states have not organized county medical societies, or equivalent parish or district societies. The scheme of organization is not at all in uniformity, and in order to promote uniformity, this conference was called.

The secretaries in attendance have been immeasurably benefited by this conference with the men of other states doing similar work. They have returned to their homes with renewed enthusiasm and determination to carry on the work of the medical profession with renewed vigor. Secretaries, who have attended this meeting, who have profited by the discussions there, and who have returned to their homes and carried on their work with the increased enthusiasm and improved ideals, will be

able to lend greater influence, and will bring far more valuable ideas to another such conference, if called a year or two hence. The same enthusiasm and the same value could be obtained from the conferences of our county society secretaries, and has been obtained by those who have attended these conferences the past four years.

EARLY HISTORY OF THE MICHIGAN MEDICAL SOCIETY

The first article published in the first number of the JOURNAL of the Michigan State Medical Society, September, 1902, was the President's Address by Dr. Leartus Connor, delivered before the State Medical Society that year when the reorganization was put into effect. This address presented in brief form some of the interesting facts of the early history of medical organization in Michigan. The announcement was made at this time in a foot-note, that the unpublished records of the first medical society in Michigan, the Medical Society of the Territory of Michigan, were in the possession of Dr. C. G. Jennings, of Detroit.

We have lately persuaded Dr. Alpheus F. Jennings to edit these transactions for the JOURNAL in order to place this early history of medicine in Michigan before our members, and in a more accessible place for use as a reference. The material contained in this volume will be presented in abstract form by Dr. Jennings in several chapters, to be published each month until complete.

We would call especial attention to the fact that the first medical society in Michigan was formed by special act of the legislative body of the territory in 1819, and that certain definite powers were given to the society. It was an incorporated body and had full authority to examine and license practitioners of medicine.

We are fortunate in obtaining this almost priceless history of early medicine in Michigan.

THE STUDY AND CONTROL OF THE SPECIALTIES

In the New York Times of Aug. 26, 1912, Dr. Neumann of Vienna is quoted to have said: "My assistants have to work. If they do not study and work they must leave. In five or six years of hard work I can turn out specialists." The specialist thus quoted touches a very sore spot. If a physician who is in a position to speak with authority and who lives in a medical center with an immense clinical material, such as is found in very few places, tells us that it takes him five or six years to impart that knowledge and skill to a physician necessary to make him a specialist we can draw several valuable conclusions from such a statement.

First. We cannot fail to notice and to emphasize that the preparation for a specialty, which is solely acquired in Vienna in a few months or even in a year, is absolutely inadequate and should be discredited by all means in our possession. Such insufficient preparation is decried by a man who is in a position, like few others, to pass judgment on such a training.

Second. If it is impossible to become a specialist in Vienna in less than five or six years, how much longer will it take in small places with little clinical material and under less able teachers?

Third. What kind of specialism is practiced in this country if the statements mentioned before are true? Neumann declares that, in his line, real specialists, in this country "might almost be counted on two hands." This statement is the more noteworthy if we remember the perpetual exodus of physicians to Vienna who intend to return as full-fledged specialists.

What applies to one specialty applies to all. It will come within the province of the committee appointed by the Michigan State Medical Society to consider as many sides of the question as possible and to suggest measures which in time will regulate the study and control of the specialists.

EMIL AMBERG.

IN MEMORIAM

DR. OLIVER B. CAMPBELL, University of Michigan, 1875, a member of the Michigan State Medical Society, and for three terms President of the Clinton County Medical Society, died suddenly at his office in Ovid, October 28, of cerebral hemorrhage, aged 60.

DR. FESTUS F. PITCHER, Chicago Homeopathic Medical College, 1894, formerly of Battle Creek, Mich., died at the home of his parents in Mount Pleasant, Mich., October 30, aged 39.

DR. WILLIAM I. HAMLEN, Michigan College of Medicine, 1883, a member of the Michigan State Medical Society, died at his home in Detroit, October 26, from pneumona; aged 57.

DR. RAYMOND A. YOUNG, of Grand Rapids, formerly a member of the Michigan State Medical Society, died October 26, 1912.

NEWS

Dr. Bion Whalen, of Hillsdale, was elected to the State House of Representatives on the Progressive ticket.

Dr. R. G. Cook announces the removal of his office from Fulton, Mich, to the McNair Building, Kalamazoo, Mich.

Dr. E. S. Sherrill and Dr. C. E. Simpson of Detroit announce the removal of their offices to the Broadway Market Building, Room 320.

The November Cosmopolitan contains a beautifully illustrated and charmingly written article, "The Messengers of Death," by Dr. Henry Smith Williams, dealing with the various insects known to transmit diseases: Housefly, anopheles, stegomyia, rat, flea, tick, tsetse fly and bedbug.

Joe Manitou, an Indian chief of the Pottawattomie tribe, died on October 24, at his home in Traverse City, Mich., at the reputed age of 120 years. Until recently his memory, it is said, was clear, and he could recall the details of the early Indian wars in which he had participated.

Dr. O. M. Vaughan of Covert, who has been president of the board of the superintendents of the poor for the past 15 years, has been unanimously elected by the board of supervisors for the sixth term. It is a handsome compliment to the doctor and is proof of the efficient manner in which he has performed the duties of this responsible position.—*Exchange.*

It is reported that President Taft has decided on the appointment of Dr. Carl L. Alsberg as successor to Dr. Wiley, though no formal announcement has been made. Dr. Alsberg at present occupies the position of chemical biologist in the Bureau of Plant Industry of the Department of Agriculture at Washington. He is a graduate of Columbia College (1896) and of the College of Physicians and Surgeons, New York (1900), and was formerly instructor in biological chemistry in the Harvard Medical School. He has also taken courses in chemistry and biological chemistry in some of the German universities. He is thirty-five years old.

Dr. H. J. Schierson, formerly of Detroit, who confessed to conducting an illegal "clinic" in Pittsburgh, Pa., where foreigners were fleeced, was Nov. 9 sentenced to serve 10 months in the Allegheny county workhouse.

Schierson was sought by the Detroit authorities for alleged illegal practices in Detroit. He fled to Pittsburgh and was being held there for extradition when he was released just before Detective John Steinhebel arrived. The two Allegheny county detectives were removed and prosecuted for their part in helping Schierson outwit the Detroit officers. It was alleged that they took money from him for their assistance. —*Detroit Free Press.*

Since Oct. 1 the following articles have been accepted for inclusion with New and Nonofficial Remedies:

Casoid Diabetic Flour, Thos. Leeming & Co.
Paratophan, Schering & Glatz.
Phenoco, West Disinfecting Co.
Tuberculin B. E., Cutter Laboratory.
Tuberculin B. E., Bovine, Cutter Laboratory.
Tuberculin O. T., Cutter Laboratory.
Tuberculin O. T., Bovine, Cutter Laboratory.
Tuberculin B. F., Cutter Laboratory.
Tuberculin B. F., Bovine, Cutter Laboratory.
Tuberculin T. R., Cutter Laboratory.
Tuberculin T. R., Bovine, Cutter Laboratory.
Tuberculin Ointment (Moro's Reaction), Cutter Laboratory.

Tuberculin for the Thermal Reaction, Cutter Laboratory.

The American Surgical Association has appointed a committee consisting of Drs. William L. Estes, South Bethlehem, Pa.; Thomas W. Huntingdon, San Francisco, California; John B. Walker, New York City; Edward Martin, Philadelphia; and John B. Roberts, chairman, 313 S. 17th St., Philadelphia, to report on the Operative and Non-Operative Treatment of Closed and Open Fractures of the Long Bones and the value of radiography in the study of these injuries.

Surgeons, who have published papers relating to this subject within the last ten years, will confer a favor by sending two reprints to the chairman of the committee. If no reprints are available, the titles and places of their publication are desired.

JOHN B. ROBERTS, Chairman.
313 S. 17th St., Philadelphia, Pa.

SOCIETY NEWS

KALAMAZOO ACADEMY OF MEDICINE

The meeting of October 8 was presided over by the president, Dr. O. H. Clark. Twenty-five were present.

Plans were formulated and motion prevailed to have the annual meeting on the second Tuesday of December, and to have this an occasion for the promotion of public health matters. It was suggested that an afternoon meeting be had for the public, on a popular topic by some one of national reputation, and in the evening to have a banquet, to which should be invited in addition to all members of the Academy, their wives and friends, many influential persons from the territory covered by the Academy, such as teachers, ministers, editors and lawyers. At the banquet our guests of honor will discuss public health matters, so that, through those present, their talks may reach the whole territory covered by the Academy.

As yet no names can be announced, but will be as soon as possible. The Program, Health and Social Committees are to have charge of the affair. The idea of getting away from an occasion of light frivolity customary at banquets, and make the occasion really count for some progress, met with general approval.

Reports of the International Congress of Hygiene and Demography were given by Drs. Rockwell and Light.

Dr. Crosby reported a case of Infantile Paralysis, and Dr. Crane reported a case of trichinosis.

Owing to the lateness of the hour, Dr. Jackson asked to be excused from giving his paper.

The regular meeting was called to order by Dr. O. H. Clark, the president, on Oct. 22, 1912.

On account of illness, Dr. Canfield was unable to read his paper, as announced in the last *Bulletin*.

Dr. John R. Williams, of Rochester, N. Y., read a paper on "The Municipal Milk Problem," illustrating same with many lantern slides.

Thirty-eight were present. There were several visitors, among whom was Dr. Wilfrid Haughey, Secretary of the Michigan State Medical Society.

Abstract of paper by Dr. John R. Williams, of Rochester, N. Y., on

"The Municipal Milk Problem."

Rochester's reputation for clean milk is not fully merited. Many conditions exist which should be made better. About a year ago an investigation was made. This investigation took nothing for granted, and was made with reference to the economic questions involved. The three things considered were: (1) Production, (2) Distribution and (3) Consumption.

Milk is produced in an unclean manner because the business is not profitable. The farmer who produces milk is often wasteful. He does not carry on his farm in a business-like way.

He does not receive enough for the milk that he produces. Valuable land in the suburbs of the city is used for pasturing cows because the rapid increase in value of such property does not stimulate its development for other purposes. Milk produced on this valuable suburban real estate is always very bad.

The distribution of milk is very wasteful from an economic standpoint. Small dealers follow each other about over the same territory. Each dealer travels many miles to deliver a small quantity of milk. Many of these dealers have very poor equipment for handling milk. They can never be made to handle milk in a sanitary manner. If these wastes could be cut off, milk could be handled with the very best equipment and in a modern sanitary manner, at a saving of over one-half a million dollars every year in the city of Rochester.

Consumers attach more importance to the price of milk than they do to its quality. Proprietary milk is used by many families because they do not have ice to keep milk after it is delivered.

DISCUSSION

Dr. Crane stated that Dr. Williams had done all this investigating purely on his own resources and without any encouragement except his own scientific interest in the problem. He stated that Kalamazoo would be benefited by such an investigation.

Dr. Haughey, of Battle Creek, asked about the cost of certified milk and the pay received. He described a dairy near Battle Creek which approached ideal conditions very closely.

Dr. Clark, Milk Inspector for Kalamazoo, said that in this city the small dealer had as good milk as the large one, as a rule, and that the supply, as a whole, had improved noticeably during the past year.

Dr. Epler stated that two or three years ago the bacterial count was 750,000 to 1,000,000 where it is now near an average of 10,000.

Dr. A. L. Robinson, of Allegan, asked if the bacterial count is any different in milk which has been centrifugated and that which has not. Dr. Clark answered this question, saying that centrifugated milk usually has a higher bacterial count than the same milk not so treated, most likely on account of the increased chances for contamination while passing through the machine.

Discussions were also heard from Drs. O. H. Clark, J. B. Jackson, A. W. Crane and Mrs. Caroline Bartlett Crane.

Dr. Williams, in closing, said that good milk can not be produced profitably for the price received. He said that he did not attempt to give a remedy because the purpose of the paper was more to encourage investigation into similar conditions elsewhere. He believes that proper distribution will decrease the cost of milk two to three cents a quart to the consumer. Also that the ultimate solution of the milk problem will be to pay the producer for milk on the basis of butter fat and bacterial count. This, he declares, is now being worked out in New York with a maximum count of 30,000 and an average of 2,000 to 6,000. Separators multiply bacteria by 2. But standards of safety are more important than even the bacterial count; e. g., having to do with the prevention of tuberculosis, typhoid and infectious diseases. C. E. BOYS, Secretary.

MICHIGAN STATE BOARD OF HEALTH

Proceedings of the regular meeting, Oct. 12, 1912.

1. Arranged for conference regarding Railroad Sanitation with representatives of all roads operating in Michigan. Conference called for November 20, in the office of the secretary at Lansing.

2. Appointed Dr. S. Szudrawski, Manistee, State Medical Inspector for north half of the ninth congressional district.

3. Next Embalmers' Examination will be held at Lansing, November 20-21.

4. Syphilis and Gonorrhea were placed in the list of diseases to be reported by physicians to health officers and by the latter to the State Department of Health. These cases are not to be reported by patients' names but by numbers. Special blanks will be prepared immediately for these reports.

5. The secretary was instructed to cooperate with the State Superintendent of Public Instruction in efforts to secure legislation providing for medical supervision in public schools and providing for a Public School Building Code.

6. The secretary was instructed to take up with the attorney general the drafting of bills for the consideration of the next legislature. Legislation providing for the following will be asked:

1. State Board of Health supervision of water works systems.

2. State Board of Health supervision of sewage disposal systems.
3. State Board of Health authority and means to restrict contamination of lakes and streams used as sources of public water supply.
4. State Board of Health authority to convene local health officers in conferences, and provision that health officers' expenses in attending the conferences be paid by the jurisdictions represented.
5. Medical Supervision in Schools.
6. Public School Building Code.
7. State Sanitary Engineer.
8. County Health Officers.
9. State Board of Health closer supervision of appointment and dismissal of local health officers.
10. Supervision of Midwifery.
11. Hotel Sanitation.

CLINTON COUNTY MEDICAL SOCIETY

At the annual meeting of the Clinton County Medical Society, November 7, the following officers were elected: Dr. J. T. Abbott, Ovid, Mich., President; Dr. J. E. Taylor, Ovid, Mich., Vice-President; Dr. Eugene Hart, St. Johns, Mich., Secretary-Treasurer.

Dr. A. R. Coon, of Dewitt, made application for membership and was accepted.

EUGENE HART, Secretary.

GENESEE COUNTY MEDICAL SOCIETY

The annual meeting of Genesee County Medical Society was held October 29, at 3 p. m., in St. Cecilia Hall.

The annual reports were given and the following officers elected: President, Dr. Noah Bates; vice-president, M. S. Knapp; secretary, C. P. Clark; treasurer, F. B. Miner; director, W. G. Bird; delegates, A. J. Reynolds, W. J. Wall; alternate delegates, H. Cook, H. D. Knapp. Member of medico-legal committee, H. R. Niles. Advisory committee to Hospital Board, Drs. Conover, Randall and M. S. Knapp.

Following the business meeting, Dr. Angus McLean gave an interesting talk illustrated by charts on "Surgical Diseases of the Upper Abdomen." An interesting discussion followed.

Dr. McLean was given a vote of thanks and elected an honorary member of the Society.

A dinner in honor of Dr. Noah Bates was given at Hotel Dresden at 7 p. m. Dr. Wheelock was toastmaster and many toasts were given in honor of our guest, Drs. Don D. Knapp, Annie S. Rundell, H. W. Graham, J. G. R. Manwaring, H. E. Randall, C. B. Burr, B. E. Burnell, M. W. Clift, E. D. Rice, Noah Bates, responding.

C. P. CLARK.

GRAND TRAVERSE - LEELANAU COUNTY MEDICAL SOCIETY

The annual meeting of the Grand Traverse-Leelanau County Medical society was held Nov. 10 at the Traverse City State Hospital. Thirteen members were present. Out-of-town guests were Drs. Edmunds and Payne. The following officers were elected for the ensuing year: President, Dr. F. Holdsworth; vice-president, Dr. J. F. Slepicka; secretary and treasurer, Dr. James A. J. Hall.

After the routine business was disposed of, Dr. James D. Munson read a paper on "The Surgery of the Insane." This was followed by a general discussion.

After adjournment, a banquet was tendered those present by Dr. James D. Munson, the retiring president.

TUSCOLA COUNTY MEDICAL SOCIETY

The Tuscola County Medical Society renewed contract for care of the indigent sick for another year with the supervisors.

The following fee bill has also been adopted and put in operation by the Society:

TUSCOLA COUNTY MEDICAL FEE BILL

Physical examination in office	$2.00 to $5.00
Insurance examination—fraternal	2.00
Insurance examination—old line	5.00
Office consultation (medicine extra)	50c to 1.00
Refilling prescriptions	50c and upward
Examination of sputum	2.00
Lancing carbuncle, felon, etc	50c to 2.00
Tonsillotomy, removing tonsils and adenoids	10.00 to 25.00
Bedside consultation	5.00 and mileage
Resection of ribs for empyema	25.00 to 50.00
Aspiration	3.00 to 7.00
Circumcision	7.00 to 10.00
Reduction of fractures and dislocations (major)	10.00 and upward
Reduction of fractures and dislocations (minor)	2.00 and upward
Surgical operations (major)	25.00 and upward
Day calls in village (medicine extra)	1.00
Night calls in village, 9:00 p. to 7:00 a. m. (medicine extra)	1.75
Day calls in country	1.00 and 50c a mile
Night calls in country, 7:00 p. m. to 7:00 a. m.	1.75 and 50c a mile
Calls off the road (medicine extra)	1.00
More than one patient in same house, extra patient same as office consultation.	
Advice by telephone	50c
Confinement	10.00 to 15.00 and mileage
When detained more than four hours an extra charge will be made. Subsequent calls when necessary at regular rate of other calls.	
Confinement with instruments	15.00 to 25.00
Anesthetic	5.00 and mileage
Anesthetic for dentist	3.00 to 5.00

W. C. GARVIN, Secretary.

WAYNE COUNTY MEDICAL SOCIETY

The regular meeting of the medical section of the Wayne County Medical Society was held Monday, October 14. Dr. Hugo Freund, chairman, and Dr. J. H. Dempster, secretary, presided. An interesting case of favus was presented by Dr. Rolland Stevens. The case showed marked improvement under *x*-ray treatment.

Dr. Hugo Freund presented a case of Proliferating Mesarteritis. Patient months ago complained of inability to use his left foot and his right hand. The condition was said to be rare in young individuals, and in those born in this country. Dr. Levy called attention to a case in which the condition was limited to one finger, the patient being a heavy user of tobacco.

The Treatment of Pulmonary Hemorrhage was the title of the paper of the evening, by Dr. V. C. Vaughan, Jr.

Authorities state that from 60 to 80 per cent. of all cases of pulmonary tuberculosis suffer from hemoptysis at some time during the course of the disease. The hemorrhage may occur at any stage of the disease. Frequently the first indication of serious pulmonary trouble is the occurrence of a more or less profuse hemoptysis. In early cases the bleeding is usually slight, apt to recur, and fatal hemorrhage is rare. After the formation of cavities bleeding comes either from erosion of a vessel in the wall of a cavity or occasionally a fatal result rapidly follows the rupture of an aneurysm of the pulmonary artery.

Among 804 patients treated in the Board of Health Tuberculosis Hospital to date, 51 or 6.3 per cent. have suffered from serious pulmonary hemorrhage during their residence in the institution. Five of these cases died during the first hemorrhage, which occurred in connection with the rupture of a large vessel, death from loss of blood resulting in 10 to 15 minutes. In these cases the blood was distinctly venous in type and unmixed with air. Where bright red arterial blood was present, hemorrhage was usually not so profuse. Apparent discrepancy, due to fact that pulmonary artery contains venous, while pulmonary vein contains arterial blood.

First essential in treatment of hemorrhage is absolute and complete rest, both physical and mental. Patient should be in bed, icebag over hemorrhage area or the heart, strapping of affected side with adhesive. If in doubt as to exact source of bleeding, a strip of adhesive may be bound tightly around the chest just above the nipple line in order to lessen respiratory movements. When hemorrhage is excessive application of ligatures to extremities sufficiently tight to interfere with venous return, but not with arterial supply to the limb may be of assistance.

Control of cough imperative. Morphine in ¼ gr. doses by hypodermic, repeated every four hours if necessary. As soon as immediate bleeding controlled substitute codein, grs. ½ to 1 by hypodermic. Nausea following morphin relieved by mixture of sodium bicarbonate ℥iij, tartaric acid ℥ij, Aq. ad. ℥iii, a teaspoonful every half hour. Talking on part of the patient prohibited and relatives and friends should be excluded from the room.

With regard to diet nothing but chipped ice for six to eight hours, after which small quantities of water, milk and albumin water at frequent intervals. On second day custards, milk and hot water toast, and on fourth day solid food, care being taken that small amounts are given at any one time. Tea, coffee and alcohol not allowable.

Bowels should be left alone for four or even five days following severe hemorrhage, and provided no abdominal distress. A rectal injection of 4 to 6 ounces of olive oil, which can usually be retained for 2 or 3 hours is then given, followed by an enema preferably given by the psysician himself, who can control the amount of straining and effort on the part of the patient.

Drugs of service, those which lower pressure in pulmonary circulation and those which increase the coagulability of the blood. The pressure in the systemic circulation is no guide to the pressure in the pulmonary circuit. Wiggers has shown experimentally that pituitary extract is the one drug at present in use which raises and maintains the systemic pressure and at the same time causes a fall in pulmonary pressure and a decrease in the amount of pulmonary hemorrhage. The use of pituitrin has been followed by cessation of hemorrhage which failed to respond to other remedial agents.

Coagulability of the blood may be increased by administration of calcium chloride or lactate in 15 gr. doses every four hours on each of three successive days. Organ extracts such as those of the pituitary gland also increase coagulability. Where these methods fail and in repeated hemorrhage with no tendency to clot

formation, the use of fresh animal or preferably human serum is justified. The author has stopped intractable hemorrhage in seven cases by this means. The danger of sensitization should be borne in mind and a test dose of a tenth of 1 c.c. of the fresh serum should be administered. If no untoward effects are observed in an hour, 20 to 30 c.c. of the serum should be injected in 10 c.c. doses at intervals of from 6 to 12 hours.

Dr. E. W. Haass said that Dr. Vaughan had covered the subject so thoroughly that there was little left to be said. He deserved the thanks of the meeting for discussing the use of sera and the pituitary extract to increase the coagulability of the blood. Dr. Haass first used pituitrin and recommended it to the society.

Dr. G. H. McFall felt there was little more to say. He had used pituitrin and found it a useful agent.

Dr. Newman asked if there was any virtue in gelatin, which in explanation Dr. Vaughan considered was due to the calcium salts contained.

Dr. Mercer thought harm was often done by too frequent or too thorough examination of hemorrhagic patients.

Dr. Van Amber Brown read a case report of a profuse hemorrhage from the uterus which case terminated in recovery.

The attendance amounted to 60 members.

The regular meeting of the Wayne County Medical Society was held Monday evening, October 21, when the auditorium was filled to its utmost. Dr. E. W. Haass presided, R. L. Clark, Secretary. The members were fortunate in the opportunity to hear the first out-of-town speaker for the season, Dr. V. C. Vaughan, Dean of the Medical Faculty of the University of Michigan. Dr. Vaughan's subject was

"Anaphylaxis and Its Relation to Immunity and Disease."

He prefaced his address by expressing a feeling of satisfaction in meeting so many of his old students, as well as many others whom, though not students, he considered his friends. The term "Anaphylaxis," the speaker considered very misleading. If it meant anything at all, it meant "without protection." Recent studies have quite revolutionized our ideas regarding infectious diseases. All bacteria were unicellular organisms, and the animal body was made up of many cells, so that every infectious disease was an instance of foreign cells invading body cells. The majority of bacteria, it was explained, have no effect upon man, because in the first place the bacterial cell was not able to split up the body cells of man, in order that it might live and multiply. A capability of a cell to furnish poison did not determine whether it was pathogenic or not. In illustration of this, the prodigiosus which furnished the greatest amount of poison was classed among the non-pathogenic germs. The anthrax bacillus, on the other hand, highly pathogenic, was only slightly poisonous. All instances of racial and many cases of individual immunity were explained by the fact that the invading germ could not split up the cells in the animal body, while the body cells were able to render harmless the bacterial cells.

It has been long suspected by medical science that proteins furnish poisonous substances such as uric acid, and that they produce auto-intoxication. It has been said, for instance, that it it is not well for man to eat too much meat protein. It is only within recent years, however, that we have been able to understand why this is true. Every protein molecule, whether dead or alive, contains a poisonous substance; the poisonous part of the protein molecule has never been obtained in a pure state. One one hundred and thirtieth grain of a protein will kill a guinea-pig in five minutes. This is a poison and not a toxin. It produces no antibody. Animals cannot be immunized to it—showing that it is a poison, not a toxin. Yet, we eat protein at every meal while every molecule of protein contains a deadly poison. The elementary ferments break down the molecule until it reaches the peptones—also poisonous. We are saved from protein poisoning, Prof. Vaughan went on to say, in two ways—in the first place, the poison in question is not diffusible, that is, it does not pass through animal membranes and is therefore not absorbed from the alimentary canal. In a healthy individual it matters not how much protein he eats, since it is not diffusible. As digestion proceeds the poison is split up and rendered non-poisonous, the products being the amino-acids, none of which are poison. It used to be supposed that the gluten flour, the casein of milk changed but little in the alimentary canal. The digestion of protein, however, changes them completely into non-protein bodies, which are synthetized to form the proteins characteristic of the human

body. All proteins of the body, except the crystalline lens, the speaker explained, were specific, that is, they differed from the proteins of any other species.

There were two forms of digestion, enteral digestion, which took place in the alimentary canal, and par-enteral digestion, which meant digestion anywhere else than in the alimentary canal. Proteins sometimes got into the body without getting into the alimentary canal. Such proteins, for instance, as the protozoa and bacteria. They gained entrance in the human body by inhalation or through wounds. Once into the body, they grow and multiply, providing the ferments are able to split up the tissues of man, so the cells of the body, outside of the alimentary canal, must elaborate ferments. This is called "parenteral" digestion, or digestion into the blood or tissues. A ferment is elaborated by the blood-cells or fixed cells, so the poison of the protein molecule is set free. In this instance, it is clear that there is no alimentary canal to protect the body so that we have the action of the poison. Anaphylaxis is a study of parenteral digestion and its effects.

Dr. Vaughan spoke of the symptoms of the untoward effect of the second injection under three stages. In the first place, he had the stage of peripheral irritation, manifest by the guinea-pig scratching every part of the body, the irritation not being limited to the site of the injection. This is the stage of urticarias and erythemas. The second stage was marked by greater or less paralysis and lack of coordination, while the third stage was characterized by opisthotonus, ending in death. This condition is what we obtain by a second injection in an animal. Now what has taken place? What we have done is to split up the protein and inject protein poison. Death from anaphylaxis is death from protein poisoning. When the animal dies we say that he passed through anaphylactic shock.

In the majority of instances of "serum disease" the child has had a previous injection. Rosenau found that asthmatic patients were not good subjects for serum treatment, and that they were apt to experience anaphylactic shock. Asthmatic patients are apt to have attacks from simply riding behind horses.

The question frequently arises in regard to the advisability of using diphtheritic antitoxin where it is known that the patient has received injections. This is frequently a matter of perplexity. Dr. Vaughan answered that with a little care it might be used with safety a second time. Take a sensitized animal and inject a small amount, wait until the symptoms have passed off and then one can give all the serum that is required. "Serum disease" is not known in France. All curative sera made at the Pasteur Institute are headed 55°, as to destroy the ferment. In France they administer 1/50 of a cubic centimeter, then wait two hours, at the end of which time they may give all they want. Anaphylaxis includes all parenteral digestion.

Dr. Vaughan explained in conclusion that one great thing that the medical profession needed was "harmless sensitizers," but when we would ever get them the speaker could not tell. One could not put an unbroken protein into a man's body without poisoning. We need something, said Dr. Vaughan, that will immunize against tuberculosis. It is doubtful if we will ever get rid of tuberculosis until we have such a vaccine. In many parts of the world men are working to produce a vaccine which will sensitize and do no harm.

At the conclusion Dr. Vaughan answered queries put by Drs. Fay, Suggs, Carstens, Collins and others.

The following physicians were elected to membership of the Wayne County Medical Society: Dr. W. F. Hamilton, 234 E. Grand Boulevard; Dr. L. H. Childs, 1771 Gratiot Ave.; Dr. Hoppel, Providence Hospital. Associate Membership: Adolph Lappner, D.D.S., 170 Horton Place.

The Surgical Section held its regular monthly meeting, Monday evening, October 28. The chairman, Dr. Walker, presided; Dr. Hewitt, secretary pro tem. Dr. McLean presented a case of a stiff elbow treated by the insertion of the neighboring aponeurosis into the joint, giving useful motion and no pain.

Dr. Ballin gave a paper on

"Prognosis in Goiter Operation."

A good prognosis is founded upon an accurate diagnosis and a thorough knowledge of the therapeutic agents available. The art of prognosis has been well developed in appendicitis. The prognosis in goiter operation has much improved in the last few years. The prognosis is a very simple one in simple goiter. The functional enlargement of the gland occurring during puberty or pregnancy is the only form which will yield to medicine. A few rare

cases of exophthalmic goiter can be treated medicinally. The mortality in simple goiter is practically *nil*. The simple goiter should be removed for cosmetic reasons, because of pressure symptoms and because of the danger of later causing exophthalmic symptoms.

The prognosis in exophthalmic goiter is very different. The mortality has come down from 12 or 15 per cent. to 2 per cent. This depends on severity of the symptoms, and other factors. The heart symptoms are the most important ones in prognosis. These are much exaggerated in the few days following the operation. A large dilated heart should be a sign to wait until the heart is in better condition. The nervous symptoms are important as to the choice of an anesthetic. Most surgeons have gone back to general anesthesia as this lessens the postoperative thyroidism. The type of goiter is of prognostic importance. The nodular goiter is a favorable form. A real exophthalmic goiter without adenoma is the dangerous form to operate on. A large increase of the small lymphocytes is a bad prognostic sign. This means a lessened resistance. When they go up above 40 per cent., operation should be postponed, if possible. The *x*-ray findings have become of great importance in recent years. The large retrosternal growths are shown by *x*-ray plates. Deviations of the trachea can also be shown in this way. The persistence of the thymus may also be revealed. This may be the cause of sudden death in these cases and increases greatly the gravity of the prognosis. The presence or absence of diarrhea, vomiting or polyurea may be the deciding factor in the prognosis. The proper time as to the operation may be the deciding factor, as time of intermission should be sought if possible. The type of operation may be an important factor in the prognosis. If the patient is very bad, a ligature of the thyroid arteries may be a preliminary operation, which can later be followed by an excision if the symptoms are not permanently relieved; in 90 per cent. of the cases the symptoms will be relieved. Surgical treatment will give the best prognosis in the care of exophthalmic goiter. If medical treatment has been tried without benefit for a few months, the patient should be operated. If this is postponed too long, changes in heart and nervous system become established which can be arrested but not removed. Lantern slides were shown illustrating the pathological changes in the gland, the results obtained by operation on the blood count, clinical cases, *x*-ray plates, etc.

Dr. Freund opened the discussion and advocated early operation in cases of exophthalmic goiter. Long before the other symptoms arise, a rapid heart may be discovered. Those cases which should be treated medically are those whose hearts are in such shape as to preclude operation. Dr. J. W. Vaughan called attention to the fact that the first goiter operation was done in the seventies by Dr. Green, in Ann Arbor. The prognosis is much better in secondary exophthalmic goiter than in primary exophthalmic goiter. The technique of operation is undoubtedly one reason for the better mortality now and the fact the cases are seen earlier is another reason. Dr. McLean advocated attention to the other organs as well as the heart. Dr. Brooks uses a general anesthetic, but combines it with cocain injections. Dr. Chene suggested raying the thymus when its presence is demonstrated by the *x*-ray plate. Dr. Sanderson also discussed the paper.

The regular meeting of the society was held Wednesday evening, November 4. The president, Dr. Haass, presided. Dr. Clark, secretary. Dr. Hugo Freund presented a case of Dermatomyositis of unknown origin.

Mr. Hal Smith discussed

"The Workman's Compensation Act."

The point of view from which this legislation should be considered is the humanitarian standpoint. Until the enactment of this law all such cases came under the employer's liability law. Under this usage, the workman was compelled to prove the negligence of the employer and even if this were proven, the master had three other lines of possible defense. He could assert contributory negligence on the part of the workman, negligence on the part of a fellow workman, or the doctrine of assumption of the risk when the workman took his employment. These defenses grew out of the much simpler industrial conditions of years ago and represented justice in those days. The conditions of modern industry, however, have so changed as to make them no longer fair or just. The dangers of industrial life should not be borne entirely by the worker, but should be distributed over the rest of the community which shares alike in the advantages of the new conditions.

The manufacturers expend about $750,000 a year in Michigan to insurance companies for

defense against the results of accidents. Not more than 27 per cent. of this large sum ever reached the injured men. The balance of this went to the insurance companies, lawyers, witnesses, etc. This system has called for the workman's compensation. It rests on the theory that if a workman is hurt by an accident in an industrial occupation, he is absolutely entitled to compensation unless wilfully negligent. This theory is new in Michigan, but not in the world at large. As long ago as 1885, Germany offered workman's compensation. The opponents of this said it would set back Germany many years. On the contrary this has proved a great success. It has spread all over Europe and even to Peru and Japan. The German system is much like the Michigan law. Last year 27 million workers were under the compensation law in Germany alone. Great Britain was one of the last to embrace this system. About 4 years ago New York appointed a commission to study this, demonstrating the great expense of the old insurance system. They drew up a compulsory act which was declared unconstitutional by the courts. Many friends of workmen compensation were stimulated and many states took up the question. The commission in Michigan demonstrated an astonishing waste in the courts, as well as in the insurance companies. The average paid for a human life even when negligence of the master was proven was eight hundred dollars.

The Workman's Compensation law rests on a broad, humanitarian principle and not on a legal fiction. It rests on the theory of a contract, the workman that he will accept this compensation and the master that he will give this compensation. The employer, if he will not accept this contract, will have his liabilities doubled. The workman who refuses to come under the law, is left under the legal restraints of which he has complained in the past. Three to four thousand employers in this state have agreed to come under the law. No workman has refused to come under the law. Those who are injured under the law receive automatically a specified sum depending on the amount of the wages which the workman has been receiving. Domestic servants and farm laborers are not as yet included under the law. The amount of compensation is graded according to the wages received and the amount of injury. The definiteness of amount of damages was the thing aimed at. The certainty of payments was another thing aimed at. If the employer and workman cannot agree on the amount of the compensation, then an arbitration board consisting of one representative of the master, one representative of the man and one representative of the state industrial board, considers the matter. The man has a choice of his physician. The employer has a right to have his physician examine the man. The arbitration board can call a physician to give his advice as to the extent of the injury. The fee for this service has been fixed at five dollars. The arbitration board passes on the fact and this decision is final and the sum is then due and becomes a prior lien on the employer. If he is solvent enough, he can carry his own insurance, or he can insure, or can join a mutual company or he can pay into the insurance commissioner of the state a sum to meet these claims.

The idea of this law is to prevent injury rather than to pay compensation after the accident has happened. This has stimulated the study of the prevention of injury and accident throughout the industrial world.

The employer is liable for medical and hospital care for the first three weeks and is not liable for compensation for these three weeks' injuries. Unless the injury lasts more than two weeks, no compensation can be collected. The accident companies have increased the premiums from two to eleven times. The limit of the increase of the liability of the master has not and probably will not be reached for twenty years. Should the results of the injury extend more than eight weeks the compensation begins on the first day of the injury. If less than eight weeks, the compensation begins on the fifteenth day.

Mr. Smith answered a number of questions asked by the members and was tendered a vote of thanks for his kindness in coming before the Society with such a clear and concise statement of this interesting act.

Dr. Gunsolus reported a case.

The following were elected to active membership:

Milton G. Goff, 515 Mack Avenue.

Robt. C. Hull, 856 Forest Ave. E.

Alfred W. Holmes, Springwells, Mich.

John S. Owen.

And to associate membership:

William R. Alvord, D.D.S., 1907 Woodward Avenue.

MEDICAL ECONOMICS

CONFERENCE OF STATE SECRETARIES

One of the most important meetings since the reorganization of the American Medical Association at St. Paul, in 1901, was the Conference of the Secretaries of State Societies, called by the Committee on Uniform Regulation of Membership at the Association headquarters, Chicago, October 23 and 24. This committee was appointed in 1908, in accordance with a recommendation made in the Secretary's report for that year. At the Atlantic City session, last June, the committee summarized its reports for the last four years, and recommended that a conference of state secretaries be authorized to consider the entire question of membership conditions in the county, state and national organizations. This recommendation was referred to the Board of Trustees and a conference between the committee and the state secretaries was authorized by the Board of Trustees, to be held at the same time as the October meeting of the board. Appropriations were made for paying the expenses of all state secretaries who attended the meeting. The conference was called to order at 10:30 a. m., Wednesday, October 23, at the Association building in Chicago, by Dr. Thomas McDavitt, secretary of the Minnesota State Medical Association and chairman of the Committee on Uniform Regulation of Membership.

THE ATTENDANCE

Thirty-eight states were represented, the roll showing the following in attendance:

Dr. W. W. Watkins, Phoenix, Ariz.
Dr. C. P. Meriwether, Little Rock, Ark.
Dr. Philip Mills Jones, San Francisco, Cal.
Dr. G. W. K. Forrest, Wilmington, Del.
Dr. W. C. Lyle, Augusta, Ga.
Dr. E. E. Maxey, Boise, Ida.
Dr. E. W. Weis, Ottawa, Ill.
Dr. Charles N. Combs, Terre Haute, Ind.
Dr. J. W. Osborn, Des Moines, Iowa.
Dr. L. R. DeBuys, New Orleans, La.
Dr. W. B. Moulton, Portland, Maine.
Dr. W. S. Gardner, Baltimore, Md.
Dr. H. D. Arnold, Boston, Mass.
Dr. Wilfrid Haughey, Battle Creek, Mich.
Dr. Thomas McDavitt, St. Paul, Minn.
Dr. E. F. Howard, Vicksburg, Miss.
Dr. E. J. Goodwin, St. Louis, Mo.
Dr. H. D. Kistler, Butte, Mont.
Dr. Joseph M. Aikin, Omaha, Neb.
Dr. Martin A. Robison, Reno, Nev.
Dr. D. E. Sullivan, Concord, N. H.
Dr. Thomas N. Gray, East Orange, N. J.
Dr. R. E. McBride, Las Cruces, N. Mex.
Dr. John Ferrell, Raleigh, N. C.
Dr. H. J. Rowe, Casselton, N. Dak.
Dr. J. H. J. Upham, Columbus, Ohio.
Dr. Claude A. Thompson, Muskogee, Okla.
Dr. M. B. Marcellus, Portland, Ore.
Dr. C. L. Stevens, Athens, Pa.
Dr. J. Perkins, Providence, R. I.
Dr. Edgar A. Hines, Seneca, S. C.
Dr. Perry Bromberg, Nashville, Tenn.
Dr. H. Taylor, Fort Worth, Tex.
Dr. W. B. Ewing, Salt Lake City, Utah.
Dr. C. H. Beecher, Burlington, Vt.
Dr. Grant Calhoun, Seattle, Wash.
Dr. Charles S. Sheldon, Madison, Wis.
Dr. W. H. Roberts, Sheridan, Wyo.

No representatives were sent from Alabama, Colorado, Connecticut, District of Columbia, Florida, Kansas, Kentucky, New York, South Dakota, Virginia and West Virginina. No effort was made to secure the attendance of the secretaries of the Hawaiian Territorial Medical Society, Medical Association of the Isthmian Canal Zone or the Philippine Islands Medical Society, as these secretaries were too far removed from the place of meeting to make it possible for them to attend.

THE PROGRAM

The following program was carried out:

1. Call to order, Dr. Thomas McDavitt.
2. History and Development of Membership in the American Medical Association and Its Component Parts, Dr. F. R. Green.
3. Some of the Difficulties of the Present Situation, Dr. A. R. Craig.
4. Remedies Proposed by the Committee, Dr. Thomas McDavitt.

DISCUSSION

A general discussion of membership regulation was conducted under the following heads:

1. Fiscal Year. Should the fiscal year coincide with the calendar year? Should the fiscal year be the same in all county and state societies?

2. Should membership expire automatically at the end of the calendar year, and a new roster for each county and state society be made with the beginning of each year?

3. When should membership reports from county secretaries to state secretaries be due?

4. Should the dues of new members, joining after the first of the year, be prorated for the remainder of the year?

5. Should an admission fee be required in addition to the annual dues?

6. Should uniform application blanks, receipt blanks, and membership and transfer cards be adopted?

7. Should constituent state associations hold charters from the American Medical Association?

8. Should a uniform plan for the transfer of members be adopted?

In addition to the above Dr. George H. Simmons, editor and general manager, discussed the question of membership in the American Medical Association, and the changes in name proposed by the Board of Trustees.

REPORT OF THE COMMITTEE ON RECOMMENDATIONS

After two days' discussion it was evident that the secretaries present were agreed as to the advisability of a uniform fiscal year for all parts of the organization, to coincide with the calendar year, and that they favored the expiration of membership at the end of each year and a complete revision of the membership rolls at the beginning of each year. The committee on recommendations, consisting of Dr. E. J. Goodwin, Missouri State Medical Association; Dr. Wilfrid Haughey, Michigan State Medical Society; Dr. Perry Bromberg, Tennessee State Medical Association; Dr. William S. Gardner, Medical and Chirurgical Faculty of Maryland, and Dr. F. R. Green, secretary of the committee and of the Council on Health and Public Instruction, brought in a report recommending the adoption of provisions on these two points, and that all other points be deferred for further consideration. The report of the committee follows:

The Committee on Recommendations herewith submits the following report:

1. We recommend that this conference endorse the plan of having the fiscal year coincide with the calendar year in all parts of the organization. We further recommend that secretaries of all state associations which have not already adopted this provision bring this matter to the attention of their associations and recommend its adoption.

2. We recommend that constituent state associations adopt provisions making dues in component societies payable on January 1 of each year, and requiring county secretaries to report to state secretaries all members in good standing, together with their per capita assessment for the current year not later than March 31, State societies desiring to do so may provide a shorter period.

3. The recommendation regarding the third question under discussion is covered by our recommendation of the second.

4. Regarding the prorating of dues, we recommend that this be made optional with each component society.

5. Regarding an admission fee for membership we recommend that this be made optional with component societies.

6. While the committee recognizes, as a general principle, that a uniform system of blanks for county and state societies is desirable, as soon as practicable, we recommend further consideration of this question at a later conference.

7. We recommend that the House of Delegates of the American Medical Association be asked to consider the advisability of issuing charters to constituent state associations.

8. We recognize the desirability and advantage of a uniform method of transfer, but this system cannot be established until there has been developed a greater uniformity in other details of organization. We therefore recommend that this question be made the subject of discussion at a future conference.

9. The committee recognizes the value of this conference to the state association secretaries, and to the purpose of organization; it therefore recommends that future conferences of this character be held.

The report of the committee was unanimously adopted by a rising vote. It was also moved and carried that the secretary be requested to send copies of the report to each state secretary and to each state journal, and that the proceedings of the conference, as published in the *Bulletin*, be furnished to each state secretary desiring them, in sufficient quantities to send one to each member of the state association. After a vote of thanks to the Board of Trustees for making this conference possible by the appropriation, the conference adjourned.

MISCELLANEOUS

MEDICAL DEFENSE

The subject of medical defense by state medical societies, has been discussed for several years in THE JOURNAL and in the journals of many state medical societies.

The question of the value of a mutual medical defense conducted by state medical societies has been settled in the affirmative. Our plan has been tried and has met with a fair degree of success. A number of cases have been won, many have not been pressed when the plaintiffs discovered that the state medical society would defend the case, and one case has been lost.

In the detailed working of the plan certain difficulties arise. In one case which we won and in which the costs were assessed upon the plaintiff, the Society has been compelled to pay these costs, because the plaintiff was uncollectable, and had not been required by the court to furnish suitable security for costs. This same difficulty is met in other places and at the recent tri-state meeting of the medical societies of Washington, Oregon and Idaho, President E. A. Sommer discussed this matter, making certain suggestions. An excerpt from Dr. Sommer's address appears in THE JOURNAL for September, page 581.

The question has been raised in Michigan, if it would not be possible to require by law that suitable security for costs be required of the plaintiff in all malpractice suits. Dr. W. H. Sawyer, President of the Michigan State Medical Society, who has had much experience in legislative matters, has been requested to comment upon these suggestions, and his letter follows:

HILLSDALE, MICH., Sept. 11, 1912.

Dr. Wilfrid Haughey, Sec'y Mich. State Med. Soc., Battle Creek, Mich.

Dear Doctor Haughey: To the extract from the address of Dr. E. A. Sommer, President of the Tri-State Medical Society, of Washington, Oregon and Idaho, which you enclose to me requesting that I discuss it, I am pleased to reply, giving my opinion of his suggestion.

Dr. Sommer only raises the question, as I understand it, without being positive that his solution is feasible. These are his words:

"It is possible that certain legislation may be of assistance to us in preventing the wholesale bringing of damage actions against doctors, where, as now, it is so easy for plaintiff to begin an action. If the latter wins, he divides the amount received with his attorney, and, if he loses, he is out about $15.00 that he has paid as fees for getting into court. But whatever the result of the litigation, the doctor is greatly injured as is the profession. Merely as a suggestion I would say that legislation along the line of requiring a person under such conditions to put up a bond to reimburse the doctor, in case the plaintiff is not responsible, or possibly a law making a criminal offense for a person to make a charge against a doctor unless he proves the same, might be reasonable and of benefit to our profession."

This is the problem presented: Would a statute be held to be constitutional which required the plaintiff, in an action for damages against a physician for malpractice, to give security for costs?

An examination of this question cannot be complete, nor can the question be answered, until we put the statute to the test of the basic principles underlying and governing the construction of all laws.

"Equality" is one of the leading tests in determining whether a law is within the constitution. All laws must have for their immovable basis the great principle of constitutional equality.

Judge Cooley, in his great work on "Constitutional Limitations," says:

"Those who make the laws are to govern by promulgated, established laws, not to be varied in particular cases, but to have one rule for rich and poor, for the favorite at court and the countryman at plough. This is a maxim in constitutional law, and by it we may test the authority and binding force of legislative enactments."

In this valuable work, Mr. Cooley further says:

"The state has no favors to bestow."

Now applying these well known principles of constitutional law to the answer of the question, and we are irresistibly led to the conclusion that a statute which provides that security for costs must be given in *all* actions for damages, would be valid for the reason that all defendants are treated alike. In other words there is equality. The state bestows no favors. While I have no doubt but that such a law would be held valid, I am not unmindful that such a law would be against the general policy of "driving the poor man out of court." The reason for holding such a statute valid, which requires security for costs in *all* damage cases, furnishes the reason for holding the proposed statute invalid.

The litigant must give a bond when he brings suit against a physician for damages, but he need not when he sues the railroad company, or an individual. Is not the physician clearly the "favorite at court?" Does not the state bestow a favor to a class? And are defendants in damage cases on an equal footing? The answer to this last question is clearly "No." Constitutional "Equality" has not governed. The doctor would enjoy a privilege not enjoyed by other defendants.

It is clear to the medical profession that many suits are commenced to recover damages

for alleged malpractice against physicians by unscrupulous practitioners in law, which are no less than blackmail, but this is also true of suits brought against railroad companies, corporations and individuals, and a law that compelled a litigant to give a bond in the one case, and not in *all* cases where damages are sought to be recovered, is clearly favoring the physician, a class, and could not stand the "Equality" test.

In conclusion, such a proposed statute would be invalid for the reason that it imposes a burden upon the litigant in actions against physicians, but not in all damage actions, and for the further reason that it discriminates in favor of one class, bestowing a favor to one class of citizens, not enjoyed by all citizens, and to sum it all up, it would be what is commonly known as class legislation. The court may at its discretion require of a plaintiff who manifestly has no just cause, security for the costs of prosecution. However, the courts are loath to prejudge a case and exercise this right.

Regretting that there is not some way of protecting the profession against blackmail and unrighteous prosecution. I am,

Yours sincerely,

WALTER H. SAWYER.

OUR SURE CURES

The state food and drug department has been making disclosures that ought to be of practical value to people in this state. One of them, the other day, related to certain high-priced drugs that are sold as sure cures for consumption and other ills. It would seem that parents and school teachers have neglected their duties if they have not taught the children that a little medicine taken a few times internally cannot cure a broken down or wornout system. In such a case to depend simply on a drug or any one application of a relief agency would be comparable to depending on a coat of paint to restore a burned structure or a wrecked engine.

Science and the medical fraternity have done great things. But their most ardent devotees cannot, and doubtless do not, claim that they have solved all the riddles of human ailments. If they have not been able to do so by turning over their hand or administering a bottle of "dope" to consumptives, for instance, why should a reasonable person conclude that an ignorant quack can work miraculous cures? There is hope and help for the sick, but they do not come from charlatans and impostors. Science is making headway against the great plagues of the race. Relief and even cures are now possible where once there was no hope; but intelligence, skill, fresh air and good surroundings, and not three doses a day of some remedy unknown to science, are the main dependencies.

It may be seriously asked why the people so often turn to fake remedies. The medical fraternity cannot escape its share of the blame. There are recognized medicine men who are incompetent and inconsiderate. Primarily the authority to practice medicine comes from the state. We have in Indiana a state board that has done something toward weeding out professional incompetents and crooks who practice medicine without knowledge or honor. This must go on until the state is rid of pretenders and incompetents, who prey on people in the hour of their distress. Warnings enough have been uttered so that the sick need not fall victims to sure-cure venders who would take the last dollar from a dying man in exchange for a worthless nostrum sold at a ridiculously high price.—Editorial, *Battle Creek Daily Journal.*

AN ANTIDOTE TO ALCOHOL

Ammonium chlorid is recommended as an antidote to alcohol, given in doses of 30 to 60 grains, with copious draughts of water to prevent gastro-intestinal irritation. It prevents the effects of the alcohol, sobers the patient quickly, and is a valuable preventive against delirium tremens. Should the patient not become quiet after taking the remedy, bromid or chloral hydrate may be administered.—*Medical Times*, July, 1912.

NEW AND NONOFFICIAL REMEDIES

Since publication of New and Nonofficial Remedies, 1912, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies."

CASOID DIABETIC FLOUR is a mixture of the albuminoids of wheat (gluten) and of milk (casein) composed of approximately: proteins 84.5, fat 1.4, mineral matter 2.5, cellular fiber, etc., 0.7, water 10.8. Employed in cases where

carbohydrates are contra-indicated, such as diabetes, amylaceous dyspepsia, etc. Thos. Leeming & Co., New York (*Jour. A. M. A.*, Nov. 2, 1912, p. 1622).

PARATOPHAN is methyl-atophan, 6-methyl-2-phenyl-quinolin-4-carboxylic acid, $CH_3.C_9H_4N.C_6H_5.COOH$, 6:2:4=$C_{17}H_{13}O_2N$. Its action, uses and dosage are the same as atophan (See New and Nonofficial Remedies Department, May, 1912, p. 319). Paratophan tablets contain paratophan 0.5 Gm. (7½ grains). Schering & Glatz, New York (*Jour. A. M. A.*, Nov. 2, 1912, p. 1623).

PHENOCO is a preparation of coal-tar creosote and higher phenol-homologues in soap solution. It is stated to contain 8 per cent. coal-tar creosote (obtained by the destructive distillation of coal and containing 15 per cent. cresol but no phenol) 62 per cent. higher phenol-homologues (phenols containing two or more methyl groups) and 30 per cent. soap. It is miscible with water forming an emulsion. It is an antiseptic and germicide, being in the latter respect 15 to 16 times as strong as phenol, and for mammals about one-half as toxic as phenol. It is used in dilutions of 1 per cent. to 5 per cent. or higher. The West Disinfecting Co., New York (*Jour. A. M. A.*, Nov. 9, 1912, p. 1717).

TUBERCULINS represent the toxins of the tubercle bacillus. They may be in the form of a filtered extract of the bacilli or may be composed of the pulverized insoluble substance of the bacilli themselves. In the latter, or emulsified form, tuberculin is shown as tubercle vaccine, and might be classed with the "Bacterial Vaccines." Supplied in the following forms:

Tuberculin Bacillen Emulsion, Tuberculin B. E., is a suspension of ground tubercle bacilli containing 5 mg. of the solid tubercle substance to each c.c.

Tuberculin B. E. Bovine is made in the same manner as the foregoing, except that the tubercle bacillus used is of the bovine type.

Tuberculin Old (Tuberculin O. T.), preserved with trikresol in 1 c.c. vials.

Tuberculin O. T. Bovine is made by the same process as the foregoing except that the organism used is of the bovine type.

Tuberculin Bouillon Filtrate is preserved with 4/10 per cent. trikresol in 1 c.c. vials.

Tuberculin B. F. Bovine is made in the same manner except that the bovine type of tubercle bacillus is used.

Tuberculin T. R., Tubercle Residue, is a suspension of 2 mg. of tubercle substance in each c.c. of the finished product.

Tuberculin Ointment (Moro Ointment) is a mixture of 50 per cent. each anhydrous wool fat and Tuberculin O. T., human strain.

Tuberculin for the Thermal Reaction contains in each c.c. 1 mg. Tuberculin O. T. Cutter Laboratory, Berkeley, Cal. (*Jour. A. M. A.*, Nov. 9, 1912, p. 1717).

THE TRUTH ABOUT MEDICINES

It is the purpose of this department to encourage honesty in medicines, to expose frauds and to promote rational therapeutics. It will present information regarding the composition, quality and value of medicaments, particularly as this is brought out in the reports of the Council on Pharmacy and Chemistry and of the Chemical Laboratory of the American Medical Association.

CARTER'S LITTLE LIVER PILLS.—These are claimed to "cure constipation, biliousness, sick headache and indigestion." A typical advertisement says: "Do not persecute your bowels. Cut out cathartics and purgatives. They are brutal —harsh—unnecessary." But while thus claimed to be free from purgatives, the analysis of this nostrum, published in "Secret Remedies," vol. 2, by the British Medical Association indicated the presence of podophyllin, licorice root, aloes and wheat starch (*Jour. A. M. A.*, Oct. 19, 1912, p. 1472).

D. D. D.—This is a nostrum exploited as an eczema cure both here and in England. As sold in the United States, each ounce contains, according to the label, as required by the Food and Drugs Act, chloral hydrate 7 gr. and alcohol 38 per cent. D. D. D. as sold in England does not contain chloral probably because the laws of Great Britain require that products containing such dangerous drugs as chloral be provided with a poison label. An analysis made by the British Medical Association, published in "Secret Remedies," vol. 2, indicated the following composition: salicylic acid, 0.75; carbolic acid, 1.18; oil of wintergreen, 1.00; glycerin,

9.28; alcohol, 65.10 and water 22.69 (*Jour. A. M. A.*, Oct. 19, 1912, p. 1472).

CELMO.—Celmo, a patent medicine sold as a cure for rheumatism, shows how a commonly-used, well-known drug may be put out under a fancy name, exploited by fraudulent claims and foisted on the public as something entirely new. While sold as an entirely new method of treating rheumatism an analysis made by the British Medical Association and published in "Secret Remedies," vol. 2, indicates that its chief constituent is the widely used acetyl-salicylic acid or aspirin. The analysts reported this "wonderful new remedy" to consist of: acetyl-salicylic acid, 35.5 per cent.; powdered charcoal, about 8.0 per cent.; malt extract, dry, 18.0 per cent.; talc, 14.5 per cent.; other mineral constituents 2.8 per cent.; water, 12.3 per cent.; alkaloid, 0.5 per cent.; extractive, about 8.0 per cent.; oleoresin of capsicum, trace, and oil of juniper, trace (*Jour. A. M. A.*, Oct. 19, 1912, p. 1472).

BROWN'S BRONCHIAL TROCHES. — Brown's Bronchial Troches, sold by John I. Brown, Boston, belong to the "cough lozenge" type of nostrum and are harmful only in a negative way in that they may be used to allay symptoms of what may prove to be an incipient lung or throat trouble of a serious nature. According to the analysis published in "Secret Remedies," vol. 2, these troches contain: powdered cubeb, extract of licorice, gum and sugar (*Jour. A. M. A.*, Oct. 19, 1912, p. 1472).

ANTIKAMNIA IN AMERICA AND GREAT BRITAIN.—Examination in the A. M. A. Chemical Laboratory of a specimen of Antikamnia just received from London showed it to contain acetanilid but no acetphenetidin and thus to differ from the Antikamnia now sold in the United States which contains acetphenetidin but no acetanilid. This examination was made because the Antikamnia Chemical Company had claimed that the Antikamnia formula was the same for all countries and had threatened with suit for libel. While the protestation of the Antikamnia promoters probably indicates that the composition of the English Antikamnia will be changed in the near future a study of the Antikamnia advertisements in English medical journals shows that the British medical profession is not being apprised of the proposed change (*Jour. A. M. A.*, Oct. 26, 1912, p. 1550).

DIORADIN REFUSED RECOGNITION.—Dioradin was first submitted to the Council on Pharmacy and Chemistry in July, 1911. Because of the manifestly unwarranted claims made for its therapeutic value in the treatment of tuberculosis, the Council voted that the product be refused recognition without at that time considering the possible conflicts with other rules of the Council. Reform in the method of advertising having been promised by the American agent, the Council, when requested to give further consideration to Dioradin, considered the available evidence regarding the identity and value of the preparation. Examination of the evidence regarding the composition of Dioradin —claimed to consist of radium chlorid, iodoform and menthol in an ether-oil solution— showed serious discrepancies as to the amount of radium as well as to the identity and amounts of other constituents. It was further found that the experimental evidence was insufficient and biased. Then too, in view of the difficulty of judging the effects of medicines in tuberculosis, the clinical data were unconvincing. There was nothing to indicate that the reported improvements even if they occurred could be ascribed to the mixture as a whole rather than to any one of its constituents. As a result of the findings the Council voted that Dioradin be refused recognition (*Jour. A. M. A.*, Oct. 26, 1912, p. 1556).

INCOMPATIBILITY OF SODIUM ACID PHOSPHATE AND HEXAMETHYLENAMIN.—It has been found that when hexamethylenamin and sodium acid phosphate (sodium dihydrogen phosphate) are contained in a solution that decomposition gradually takes place. The hexamethylenamin is decomposed with liberation of formaldehyd, the ammonia set free at the same time neutralizes the acidity of the sodium acid phosphate. The same reaction takes place more slowly in the cold. Therefore the therapeutic effects of the two drugs are practically lost if such a solution is kept for any length of time (*Jour. A. M. A.*, Nov. 2, 1912, p. 1640).

NOSTRUMS AND THE MEDICAL PROFESSION.—Samuel Hopkins Adams calls attention to an instance of the average practitioner's attitude towards "patent medicines." He states that a newspaper publisher who wanted to exclude all fraudulent or questionable advertising, on submitting an advertisement for Duffy's Malt Whiskey to four physicians for an opinion was advised that there was no reason why the advertisement should not be accepted. There is no excuse for members of the medical profession to plead either carelessness or ignorance in matters

of this sort. It is the business of physicians to be informed on such matters and they should know that unwarranted and dangerous claims are being made for Duffy's Malt Whiskey (*Jour. A. M. A.*, Nov. 2, 1912, p. 1640).

ACETYLSALICYLIC ACID AND ASPIRIN.—Examination reported in German pharmaceutical journals shows that acetylsalicylic acid manufactured by reliable firms is of good quality and equal in every way to that sold under the proprietary name "aspirin." Acetylsalicylic acid is a definite chemical and is the same, no matter who manufactures it. Because of the too great-readiness with which patents are granted in the United States and because of the construction of our patent laws it has been possible for the Farbenfabriken of Elberfeld Company, which controls the trademark on the word aspirin, to obtain a patent in the United States on acetylsalicylic acid, thus securing a complete monopoly in this country. In view of the patent grant, which has been upheld by the courts, it is inadvisable to have anything to do with any other brand than that of the patentees (*Jour. A. M. A.*, Nov. 2, 1912, p. 1642).

AUBERGIER'S SYRUP OF LACTUCARIUM.—Physicians have frequently wondered why they were unable to obtain from the Syrup Lactucarium, U. S. P., the therapeutic results which they were able to obtain from a proprietary product known as Aubergier's Syrup of Lactucarium, sold by Fougera & Co. at an exorbitant price and put on the market in patent medicine style. With the advent of the Food and Drugs Act the secret of the soporific effect of the Aubergier product was explained—the label on the bottle now declares it to contain morphin. One of the advantages claimed for ready-made prescriptions over the made-to-order variety or even over pharmacopeial preparations is that they are more elegant in appearance and less offensive to the nostrils and palate. This is the common experience of physicians who, having prescribed some ready-made mixture, wish to change the dose of one of the constituents and write a prescription or ask their pharmacist to prepare a similar preparation. As the proprietary did not have the composition declared on the label, a mixture based on the formula will differ more or less widely from the proprietary it is expected to resemble (*Jour. A. M. A.*, Nov. 9, 1912, p. 1732).

A SHOT-GUN PRESCRIPTION.—A prescription, recently written by a physician in a prominent eastern city, called for the following ingredients: cascara evacuant, strychnin sulphate, sodium bicarbonate, codein sulphate, caffein citrate, sodium salicylate, solution of potassium citrate, solution of iron and ammonium acetate. It is strange that in the light of our present knowledge, a physician would be guilty of writing such a prescription (*Jour. A. M. A.*, Nov. 9, 1912, p. 1733).

THE GULLIBLE DOCTOR.—Dr. J. E. Reeder, Dyersville, Iowa, deprecates that physicians heed the recommendations for proprietary preparations advanced by ignorant salesmen. It seems as if the average physician could not say "no" to these semi-patent medicine agents and this accounts for the number of thrifty proprietary houses which are supported by the "gullible doctor" (*Jour A. M. A.*, Nov. 9, 1912, p. 1733).

BOOK NOTICES

THE PHYSICIAN'S VISITING-LIST FOR 1913. Sixty-second year. $1.25 net. Philadelphia: P. Blakiston's Son & Co.

This is a flexible leather bound book containing besides the customary blank pages for accounts and records, a table for calculating the period of gestation, incompatibility of drugs, treatment of poisoning, tables of weights and measures, treatment of asphyxia and apnea, and a complete dose-table.

MAKING GOOD ON PRIVATE DUTY. By Harriet Camp Lounsberry, R.N., President West Virginia State Nurses' Association. Philadelphia and London: J. B. Lippincott Company, 1912. Price, $1.

The ethics of private nursing, together with practical hints and suggestions furnish the bulk of the material presented in this book. How to get along with the patient, and her family, how to prepare food, with recipes; how to wash the baby, etc., are discussed. This is a very readable little book and is easily worth the price.

MIND CURE AND OTHER ESSAYS. By Philip Zenner, A.M., M.D., Cincinnati. $1.25 net. Stewart & Kidd Co., 1912.

Dr. Zenner is a pleasing author and is devoting his efforts to teaching public health. The essay on Mind Cure deals with mental poise and its effect in the treatment of disease. It also discusses the virtue and harmfulness of Christian Science, osteopathy, quackery, etc. The other essays are on Prevention of Nervous

Disease, Treatment and Prevention of Alcoholism, Social Diseases, Defectives, Medical Inspection of Schools and The School Physician, A School for Truancy, Eugenics and The History of a Book, all in Dr. Zenner's pleasant style and clear compelling diction.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M.D., at Mercy Hospital, Chicago. Vol. 1, No. 5. October, 1912. Published bi-monthly. By W. B. Saunders Company, Philadelphia and London. Paper, $8; cloth, $12 per year.

Number five of the Surgical Clinics of John B. Murphy, for October, is out and is of the same high standard of excellence as its predecessors. Aside from special affections of the right humerus, left elbow, right hip joint, the work is devoted to troubles of the soft parts.

These works are valuable as showing the methods employed by this successful instructor, also they furnish a good record of actual cases occurring in his clinics and covered by his lectures, to which in many instances, is added an editor's note giving progress of case.

MUSCLE SPASM AND DEGENERATION in Intrathoracic Inflammation and Light Touch Palpation. By Francis Marion Pottenger, A.M., M.D., LL.D. Sixteen illustrations. St. Louis: C. V. Mosby Company, 1912. Price, $2.

The title of this book is unfortunate in that the true content and object is not suggested by it. Dr. Pottenger has worked out a theory of relation between muscular conditions and acute and chronic inflammatory conditions which others seemed to have confirmed, and which must if ultimately adopted be of inestimable value in physical diagnosis, especially in the diagnosis of tuberculosis. This theory and its practical application are clearly and concisely set forth, and are worthy of more than passing attention by all physicians doing much physical diagnosis in relation to the chest.

A TEXT-BOOK ON THE PRACTICE OF GYNECOLOGY. For Practitioners and Students. By W. Easterly Ashton, M.D., LL.D., Professor of Gynecology in the Medico-Chirurgical College of Philadelphia. Fifth edition, thoroughly revised. Octavo of 1,100 pages, with 1,050 original line-drawings. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $6.50 net; Half Morocco, $8 net.

This book is very thorough. Not only will the student find that which he wants, but the practitioner will find what he needs. No gynecologic subject is too great nor is detail too small, to receive attention in this work. From the simplest vulvitis to the most complicated hysterectomy, the searcher will find the field covered with great care, and much minuteness. In both text and illustration, clearness of diction and engraving are marked features.

The plan of the work begins with the vulva and extends up through the entire genital tract, describing with clearness, all affections of each part successively, then general conditions are taken up, asepsis and hospitals are discussed, general operative technic given, and many special and major operations described. Also the possible complications and methods of meeting them, including intestinal anastomosis, receive attention.

Complete description, both in text and engraving, is given of the major gynecologic operations; instance: hysterectomy, both vaginal and abdominal, including the complications that may arise as resections of intestines, appendectomy, etc. To the kidney and the technic of nephrorrhaphy, a final chapter is devoted.

INTERNAL MEDICINE. By David Bovaird, Jr., A.B., M.D., Assistant Professor of Clinical Medicine in the College of Physicians and Surgeons of Columbia University; Associate Visiting Physician of the Presbyterian Hospital, and Visiting Physician of the Seaside Hospital, in the City of New York. With 109 illustrations in the text and 7 colored plates. Philadelphia and London: J. B. Lippincott Company. Price, $5.

The arrangement and scheme of this work will appeal to students and practitioners in search of quick information. It is without long pages of discussions and opinions, and at the same time explicit enough to be clear and comprehensive. The book is not an exhaustive treatise but a clear and somewhat dogmatic statement of facts and in some instances what its author conceived to be facts. Some apparently positive statements are thus made of conditions that are not as yet absolutely proven (an uavoidable sacrifice to brevity). The book will be very useful to students and as a ready reference for busy practitioners.

A TEXT-BOOK OF OBSTETRICS. Including Related Gynecologic Operations. By Barton Cooke Hirst, M.D., Professor of Obstetrics in the University of Pennsylvania. Seventh revised edition. Octavo of 1,013 pages, with 895 illustrations, 53 of them in color. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $5 net; Half Morocco, $6.50 net.

The policy of treating with obstetrics not only the physiology and pathology leading to it and of pregnancy, but also the allied diseases and gynecologic conditions growing therefrom,

has been continued by Hirst in this seventh edition. This position is sound and in growing favor with medical men the world over. From anatomy, examinations, insemination, fetal development, maternal changes in pregnancy, labor and the puerperium, the author passes to abnormal conditions, obstetric operations, and the new-born infant.

Much formerly considered in the domain of gynecology, is treated in this book. Perineal and cervical lacerations, and all pathologic conditions of the genital tract, both immediate and remote are treated. The surgical treatment of affections of the mammary glands, plastic operations on the uterus and its appendages, also radical measures for removal of same with careful description of technic, in fact everything immediately or remotely growing out of the pregnant condition, is interestingly, and the reviewer believes properly given place in this very useful book.

With hospital facilities so generally distributed, the time is fast approaching when the general practitioner will be not only his own obstetrician, but gynecologist as well, doing his own surgery, seeking aid only when needed in his most difficult and important cases.

A TREATISE ON FRACTURES AND DISLOCATIONS. By Lewis A. Stimson, B.A., M.D., LL.D., Professor of Surgery in Cornell University Medical College, New York. New (7th) edition, thoroughly revised. Octavo, 930 pages, with 459 engravings and 39 plates. Cloth, $5 net. Lea & Febiger, Publishers, Philadelphia and New York, 1912.

The great impetus given the study of injuries to the Oseous System, Fractures and Dislocations, by *x*-ray illumination, thus enabling an approach to exact diagnosis in this field corresponding to that already achieved in other regions, has stimulated an amount of study on this line that bids fair to place bone surgery and especially the treatment of fractures and dislocations at par, scientifically, with the treatment of injuries and diseased conditions in other parts of the body.

We may, therefore, confidently look to the near future for better results and less legal complications following our efforts than have followed in the past, before the light of positive knowledge was thrown on this dark territory by the all revealing illumination of the effulgent *x*-ray.

This has stimulated all to a deeper study and better exposition of the mechanics of bone injuries. The rapid increase of our knowledge is shown by the fact that Stimson has recognized a field for this seventh edition within two short years after the appearance of the sixth.

The protection afforded their members by State Societies in cases of Civil Malpractice when invoked, has been, in more than 50 per cent. of all cases, from unsatisfactory results in the treatment of fractures and dislocations, and based on the broad principle of law, that entitles the patient to the full benefits of the ordinary skill and knowledge that is possessed by practitioners in his immediate vicinity or community. That this ordinary knowledge and skill has been below what it should be, is evidenced by the large percentage of legal complications growing out of fracture and dislocation cases. Stimson and others are doing a great work and putting forth a strong effort to correct this. It now behooves the general practitioner to avail himself of this common knowledge so interestingly, invitingly and lavishly placed before him. In this way will he help to lessen the number of malpractice suits and at the same time increase his personal and financial balance. The present edition of Stimson maintains the former high standard, is embellished by numerous beautiful *x*-ray engravings, and cannot fail to be of more than ordinary service to those studying in this line.

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